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SOME MEDICAL PROBLEMS

PRESIDENTIAL ADDRESS *

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At this time, before this splendid audience of earnest members of the American medical profession and those intelligently interested in their work, there is no common meeting ground except that of service.

There is no point of view from which we may together look out on the future except that of a united interest.

Community necessities, touched by a spiritual vision, fused the beacon light of the Pilgrims who founded this nation. Community interest has developed every pioneer town since they landed on this historic site. It has built our public schools, preserved the unity of our states, and, recently, saved our nation to us. It is this primitive spirit, inherited from those heroes of want, easy to coordinate and effective beyond resistance, that is still the moving motive of this nation.

These people perfected the higher human attributes through physical hardships to which we are strangers. Under spiritual guidance they were refined. They made us what we are by transmitting to us the spirit of hope and the imagery of conquest.

The blood of these forebears has spread from the eastern to the western ocean, much as a storm passes into a gale, softens to a breeze and becomes a zephyr, as it widens and warms and tempers the seasons. Time has touched a racial temperament. Its protesting, unyielding features have been quieted, but not lost. We may yet speak with the descendants of those pioneers, on their last frontier, in the language of the Puritans from the Pilgrims' Rock, that cradle of a nation's soul.

They, and their kinsmen coming after them, were the hereditary legatees of independent thought and high aspiration. Self-governed by their religious traditions, they lived from within outward; worshipped the spirit-man, and anchored themselves to eternal principles. They designed a seal for a new nation. Although it was engraved without lines or substance or words, we can yet interpret it. It was the sign of the covenant, consecrating their descendants to found a new nation; to win its wars; to insure its peace and to perpetuate religion, without thought that immediate material opportunity could set apart or divorce that spiritual setting which they braved death to perpetuate and recognized as the source of every good work. They fought for peace; thrived on privation; triumphed over self and lived for each other, until each for himself set out on the lost trail alone and unafraid.

As a scroll unfolded returns upon itself, descendants of these people have now come back to the Pilgrim's Rock, as though each would make report of his service, much as a man who has wandered far returns to the old church yard, with reverence for the teachings of his parents, to whisper, "I have preserved your ideals."

We return not in sorrow or with apology, but we come with pride to the home of Dr. Turner, the first licensed American physician, bringing with us men whose fame is international, whose teachings have been translated into many tongues, whose names will endure with the language of medicine.

THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association is a body representing more than 80,000 trained medical men. It is the Plymouth Rock of American medicine, and we may look back through its history, and therein trace the evolution of the healing art. It is our national health service, and the common meeting ground of its members. Its special societies refine and polish its parts, which are here assembled into a working whole of contributed, coordinated, scientific, practical medicine. Its official journal is the recognized authoritative recourse for medical and for lay minds alike.

The governing purpose of this association is to collect and disseminate the truth in medicine, to perfect the science, to expose pretense, and to elevate medical men, to encourage and associate individual efforts, and to bind medicine to the government, its armies and its municipalities. And it hopes that the church and public charities, through the common tie of human sympathy—the hall mark of a Christian civilization—may also join with it for the greatest good to the greatest number.

THE PHYSICIAN HIMSELF

The physician has a duty to those who call him. As a citizen he has a community obligation, and, through organization, an opportunity to serve, second only to that of the national government. But he must first identify himself with the interests of his community, living with his people rather than on them, that he may know their minds and sense their necessities.

Only recently, when civilization's superstructure was being rocked by war, the world had its first opportunity to evaluate, in a crisis, the quality of physicians. One half of the medical men of the United States were promptly in uniform, in community war service or

* President's address before the American Medical Association at the Seventy-Second Annual Session, Boston, June, 1921.

pledged to war's exigencies. The other half staggered, but stood up, under multiplied burdens at home.

The World War has become history. There is now no insignia of rank for physicians—only the service medal of soldiers. But there was no armistice signed with disease. No attempt was made to league physicians for future emergency. Their sense of professional obligation proved to be stronger than a contract, and their service creed more binding than an oath.

A CHANGED NATION

Our nation will not again follow its prewar social, professional or business customs exactly. New opportunities have presented themselves, requiring different methods of approach. Thoughtful men believe that a crisis threatens established principles, and that physicians must now earnestly address themselves to the cause and the prevention of disease and disability as the primary concept of medicine, safeguarding its principles, lest the profession lose its esprit de corps, and its place in public esteem. If its members become piece workers, it may fail of public appreciation as an essential economic factor in the preservation of the national wealth, because of a depreciating national health. Our medical outlook must then be based on public welfare; and the function of the physician should be not only to treat, but also to prevent disease in the families under his care, and in the community of which he is a part.

The history of medicine in England during the last fifty years indicates that the science has advanced in large measure at the pace sanctioned by public opinion. Within recent years our lay press has indicated a welcome interest in matters pertaining to public health

Our people regard it in a new light, as a virile, organized force, quite independent of the sick chamber or hospital environment. They see in the practice of medicine the possible application of civil morals by those skilled in healing—and more. They now urge that it must include the larger field of civic service for those who are well; for social morals should protect against disease, as well as cure it, and business thrift has come to recognize medicine as an essential in public policy.

When pestilence invades our ports from abroad, the first appeal of a terrified people is to the United States Public Health Service. When an army is to be mobilized "over night," the Medical Corps of that army must reject the unfit, isolate those infected before induction, and vaccinate against diseases of contact, while the Medical Corps of the Navy protects those at sea.

No one now believes that medical practice is limited to prescribing drugs. The art and science of medicine is comprehensive and rational. It can never be dogmatized or restricted, for it comprehends a knowledge of every art and science which may contribute to it, for the single purpose of obviating the tendency to death.

No one now believes that the physician should husband his special knowledge and sell it to individuals only; medicine is recognized as a public service, and we must contribute our quota to the public welfare because we are citizens set apart as servants of health.

There is uncertainty in the minds of thoughtless people as to the difference between physicians and pretenders, a confusion due to the fact that many diseases are self-limited regardless of treatment applied. Many that are sick recover quite independently of the kind of treatment, or in the absence of medical advice.

When recovery occurs under the ministrations of those ignorant of anatomy, physiology or pathology, it is regarded as a phenomenon. If under the care of a trained physician, it is regarded as the logical result. The attitude of a physician toward disease is to prevent it if possible; or, failing this, to aid Nature in the contest against it, by simple measures if he can, or by radical means if he must. The most intelligent, educated effort is necessary to either. The attitude of the quack is not to prevent disease but to invent it; to entertain the patient with promises of a cure he cannot give for a disease he cannot diagnose.

Physicians are indifferent to quackery as a competitor in all its phases. Their only interest in medical licensure is to prevent appropriation of the title Doctor of Medicine for the purposes of deception. The organized medical profession does not attempt to control, nor does it care what a practitioner prescribes, provided he has learned what the human body is, through his knowledge of anatomy; what it does right in health, through his study of physiology; and what it does wrong in disease, through his training in pathology.

Charlatans have no place in rational medicine. They are adventurers, supported by people who court deception for the excitement of it, and who are lured by the mysteries of ignorance.

THE YOUNG MAN IN MEDICINE

Our young men are being graduated, standardized and classified scientifically, much as the finest steel is fashioned. What may be done to develop their interest in the province of medicine, and to insure their identification with the demands of their respective communities, is an immediate responsibility of the organized profession.

The young man in medicine may be assured that its future offers to him something no other vocation has to give: the always open door to recurring opportunity. But he must not enter the domain of medicine with the commercial instinct, or he will not learn to interpret it. He may master its words and quote its forms of speech, but the language of medicine is the signal of the human heart for help, which only the true physician can interpret.

Years ago the general practitioner conceived his duty to be that of a healer only. He regarded disease as inevitable, if not indeed providential. Later he advised his clientele how to avoid it. Both of these functions he continues to exercise; but a new field presents itself; medical men must now combat disease in the mass; and disease includes wear as well as infection and its sequelae.

Neither individual preventive nor curative service is minimized by this new perspective, but rather each is intensified.

Those trained as bacteriologists, protozoologists, biochemists and physicists are rapidly increasing in numbers. They are men who may never see the patient, but whose services are necessary for the timely recognition of a disease before it gets out of hand.

The public has demanded that medical education be extended, until it now requires for its intelligent application scientists who are familiar with its most abstruse problems, having the vision of statesmen, the tact of

politicians, a mastery of the sciences, and technical training. These qualities are obtainable only through the collaboration of many minds.

All this means greatly diversified duties, and calls for more specially trained men, meanwhile amplifying opportunities for younger men in medicine and compelling their dependence on one another. This situation has developed the need among medical men for a type of practitioner who can group and weigh all symptoms essential to a diagnosis: only a new description, perhaps, of the family physician, but one tremendously broader which we fondly hope the internist may fill.

I sometimes fear that we regard ourselves as dictators in medical matters, when in reality we merely meet the demands of the public. We should remember that numerically we are as one in 800 among the people, and that our calling has already been granted many privileges, some of which are being betrayed. The prostitution of a professional confidence is often outside possible prosecution. The promiscuous prescriber of alcohol licensed as a physician, but whose ethical sense would degrade a bartender, the perfunctory prescriber for a fee, the vender of habit-forming drugs—all are educated criminals, a social menace, but posing as physicians, and tolerated by the public because of the integrity, efficiency and self-abnegation of a majority of medical men so great that these derelicts almost escape notice.

THE FUTURE.

The needs of mankind have created and developed the physician, but we now have progressed in the curative art as applied to the relief of a single organ as far as we may safely go without advancing a philosophy of medicine applicable to a nation. But we cannot apply a philosophy by mandate. We may, however, develop it in community units, which in the aggregate constitute a nation.

Medicine has not become too technical; but its application to the material man is absorbing, and has of late been tremendously stimulated by the postwar slogan of vocational training for productive education.

There is so much more to a human being than a test tube or a cadaver or an animal can disclose that we dare not neglect his distinctive attributes. If food and clothing were the only human needs, our young men might well be taught to obtain these in the most direct and primitive way. If the things of the spirit, which the cultivated crave, are to be nurtured, we cannot separate or subdivide medical education into segments, restrict its limits, ignore the refinements of science, detach a specialty from the body of its parent, or divorce medicine from other sciences and arts, and expect it to stand in its proper place.

The practice of medicine dominates some men to the exclusion of many things that broaden and sweeten life. To boast of no knowledge outside a specialty, to smother interest in cultural arts or collateral sciences, to ignore the spiritual distinction between men and animals, is to invite professional deterioration and exclusion from the highest concepts of the profession.

There is no science, art or material substance which cannot be made to touch, contribute to, or blend into the substructure of this vital science of human life. Medicine may be likened to a tree. The sciences are its roots, organization is its trunk, its practitioners are its branches, and the people are its leaves. The leaves must fall when their season wanes, but the roots are indestructible. The trunk is sturdy, but the branches must be pruned to insure maturity for the human foliage.

There is a tendency among medical men to limit themselves to diagnosis, to the neglect of preventive and therapeutic measures. Nothing gives so much reassurance in sickness as a prompt diagnosis, for it is the first essential to treatment; but immediately a prognosis, adequate therapeutics and protection against recurrence of the ailment are sought.

No thought is entertained of minimizing the importance of individual or isolated achievements. I wish, rather, to deprecate the tendency to attract attention to them to the neglect of the larger things in medicine, so necessary to retain public confidence in our profession, and to secure cooperation of physicians instead of their dissociation, now threatened, largely through special societies, which is tending to obscure medicine as a national asset.

The time has passed when a physician can stand alone in the profession and subsist on what his patrons can pay him for an inadequate, antiquated type of practice. The physician may no longer devote nine tenths of his time to travel, and the remainder to his profession. It is an economic travesty, and subversive of scientific service.

The larger things in medicine have assumed tremendous proportions, and are being weighed and studied by sociologists and socialists, often impatient with suggestions from medical men. They are not interested in specialized, perfected technic; indeed, their problems have far greater scope. These are semisociologic and can be measured only by medical men, who bring to meet them moral and scientific equipment. These problems involve every human interest, from stabilizing the moral fabric and conserving the man-power essential to our great industries and the production of our food, to the development rights of the child in the kindergarten.

GRADUATE TEACHING

Continuance of the present high plane of medicine is contingent upon the development of graduate work. The profession has been delayed for want of it, and it is being hindered by some proprietary graduate schools, precisely as the profession was depreciated by inferior, faculty-owned, undergraduate schools, now practically past.

Graduate training of physicians should mean more than the teaching of methods of diagnosis or operative maneuver by a specialist, however eminent. It should include the problems of living; the physician's relations to his environment; his duty to it and responsibilities for it; his contact with practitioners of similar attainments and common interest—a medical exchange or a professional clearing house: for nothing dulls the edge of competitive suspicion as does association for a common purpose, and nothing of importance can be accomplished by us comparable to the teaching of the practitioner in order that the public may be taught.

The first and last hope of scientific medicine lies in the medical colleges, and with the local medical societies. Between these acquiring and applying processes of medicine are the daily requirements of 100,000,000 people. Nothing needs to be done for teaching centers by this association other than has already been done, except to encourage the highest standard possible to each one. What should be done at the terminal distributing points of medical training is

everything. If each component county medical society would strive to learn how much it could give to the profession rather than how much it could extract through it, with the unwholesome competition that this attitude compels, then the agitation for compulsory health insurance would pass, common centers for community service would arrive, charlatans perish, incomes be augmented, and professional security be advanced.

Colleges have learned to look longingly to the great foundations organized for higher medical education and for research in establishing scientific facts heretofore elusive, or at most conjectural. No one should criticize such appropriation and expenditure in itself; but, having in mind the medical discoveries and inventions of the last century made by physicians in villages, working alone, we may well wonder whether the ends in view would not be better served by application of the great incomes from these endowments to the encouragement of physicians in little villages, working from below upward for the relief of what is known, rather than in a search for what may not exist or possibly will prove of negligible value, if found.

The foundations of medicine were, in part, laid by the country doctor of the last century. His clientele today are not the helpless, homeless, abject poor; but they are, nevertheless, being deprived of the advanced medical care to which all are entitled.

Suggestions that the standard of medical qualifications be lowered to men willing to practice in the country are unworthy. Offer a chance for professional advancement to the physician already there. Take to him the graduate opportunities he craves, and he will remain and serve well. Let the great foundations, the schools, and the American Medical Association unite to send teachers to physicians at their work, which they cannot leave. Ask the county medical societies to cooperate; then the public will recognize organized medicine as a going concern and will support its attempted philanthropies.

RURAL COMMUNITIES

Rural economists are disturbed because our cities and towns have absorbed so many country people that a minority now live in the country. The consumers have at last outnumbered the producers in the United States. The cry of "Back to the farm" has been raised to help solve our food problem.

A migration back to the farm will not occur, but a stay on the farm policy may be developed. The city-ward movement is fostered by the farmer's wife, who is wearied by toil and benumbed by monotony, with inadequate rest, and scant protection from birth accidents. Her young are born and reared far from good school privileges and the protection of sanitation. The city now rears the healthiest children, and schools them better, offering conveniences and attractions not to be found on the farm. Consolidated community schools have already come, and with them must come readily available protection to the health of rural dwellers, or we shall very soon be compelled to pay famine prices for our food, and the source of virile men shall fail. These are academic questions, far from the clouds so attractive to live among; but the earth finally solves all problems.

Medicine cannot be dissociated from economics without inviting the deterioration which has come to older civilizations whose histories have been written. Our scheme of governmental administration provides for a secretary of labor to guard wage rights; a secretary of agriculture to study animal husbandry; a public health service under a lay secretary of the treasury, but there is no one charged with conserving the physical ability of men to do a day's work.

An economist of health, with governmental prerogatives, is an acute need for this nation, for the primitive, purpose of producing our own food and fabricating our materials for trade exchange. Cities have come to provide for sick emergencies of a sort, made possible solely through the gratuitous service of physicians. The small towns and country places of the United States appeal for, and are equally entitled to, the same opportunity to protect themselves against poor health.

HEALTH CENTERS

There is need in every locality for health assurance, through improved health service. Health centers are in operation, for which communities tax themselves, in order that their indigent sick may be treated. Other communities propose to institute like service, asking the state to share the expense. They may aid the physician tremendously in caring for the sick, by conserving his time, and supplying laboratories and aids not otherwise available. Such centers should lessen expense to the ailing and stimulate medical accuracy, because under the supervision of several medical men.

There is an opportunity through them for physicians to assume their rightful place as an organized influence for health betterment in every locality. This will be rather simple of accomplishment. We have constructed, and in place, the machinery to develop these things: the county medical society, under our national center. The plan of organization is perfect. All that is needed is to revivify the county medical society, to stimulate it through the state societies, and to enlist the public in our efforts to prevent disease and shorten sickness.

Clearly the state, or some unit of government, should contribute to install at convenient points the housing and apparatus necessary to medical precision, making it available to the poorest; but beyond that an organized government should not go. The intimate relation between physician and patient must be preserved where it exists, and restored where lost, if we would give our best aid, and avoid a whole time state service, with its attendant commercializing of the profession of medicine, and the stressing of trade features.

State governments, through their teaching universities, may not justly, for a fee, attract patients for medical treatment. It is the function of a teaching college to train physicians, and scatter them for public use, and to instruct, develop and protect them as alumni in their several places.

The duty of a medical college to its graduates does not end with commencement day; and certainly it is no part of that duty to divert patients from the graduates whom it has sent out with its seal, approving their qualifications for similar service. Instead, its duty is to assist them further in qualifying for their work.

It cannot draw the sick to a common center for pay, in order to augment the salaries of its teachers, without breeding distrust, relieving citizens of their proper sense of responsibility to their neighbors, and incurring the just antagonism of its alumi.

The state must administer its assistance in public health matters, if at all, locally, through the taxpayers immediately interested. Physicians want neither personal help nor interference; but they do want the differ-

ent units of government, under which they live, to do their plain duty in the contest the medical profession has waged against disease, since the time of Galen.

HOSPITALIZATION

Hospitalization is now the first thought for the sick, partly for professional, chiefly for economic reasons.

The public regards the hospital as a public beneficence. The surgeon demands that the hospital shall be a suitable place in which to operate. The physician regards it as a necessary adjunct to the whole scheme of health. We would have the laity taught to see the future hospital as a sociologic institution, a place of refuge accessible to the well for prophylactic advice, and to the sick for their unrestricted use, instead of a retreat accessible only to those able to pay, operated primarily for profit, and not available to all.

By the same token, public hospitals must arise for those without accumulated means, who are not paupers, and the church should assume after-care, in the effective dispensation of coordinated charities as sociologic institutions, with medicine as their adjunct. Modernized hospitals can no longer be maintained by fees alone, nor can a university, and for the same reasons.

If the state may properly support universities for training the student, and maintain hospitals for the custodial care of its insane poor, or a county may levy a tax for the maintenance of its county farms, logically the state or county may assess itself in order to treat its ambulatory sick, and to provide equipment to keep in earning health its essential human economic factors.

It is only an abundance of cheap food that insures the supremacy of a nation. It is the physician's function to maintain the strength of his people that they may obtain this food. The poor need uninterrupted good health and, logically, should have first aid to preserve it.

STANDARDIZATION

The standardization of medical colleges upward has been accomplished largely by stimulating pride of occupation among physicians. The elevation of hospital service, to which the impossible term "standardization" has also been applied, is engaging the best minds in medicine. Both of these movements have been actuated by a desire to protect the life of those made helpless by sickness. The one begins with qualifying physicians; the other undertakes to obtain for them a safe environment in which to do their work. Neither one, however, has assumed to protect the patient from the unqualified or the commercially graduated surgeon, the dishonest internist, or the criminal who operates for a fee, or who brings his victim to a hospital to die as a result of their joint unlawful act.

The grading of medical colleges was a sinecure compared to the grading of hospitals.

In the standardization of medical colleges, our association dealt with educated professional men. Attempts at standardization of hospitals instantly were countered with the necessity for daily income, with lay vision, without medical prescience; having in mind the financial liabilities of their institutions, and the fear of losing the patronage of even the most unworthy practitioner.

Ideal hospital standardization is far from realization because it is impossible. Minimum requirements only can be fixed before a hospital may be approved by some committee representing organized medicine. Hospitals are now essentials in the general scheme, as are churches, schools and orphanages. Clearly they should not be of such scope that the supporting community cannot maintain them, or with features, demanded of all hospitals alike, but impossible to some.

Cleanliness and fire protection are the minimum requisites for a hospital, while its financial limitations dictate every other appurtenance, except the medical element.

In hospitals, precisely as among physicians, the warfare between the educated prompting of a professional conscience, and the commercial instincts calling for quick cash returns, is the patent menace to the best service.

Standardization of hospitals has heretofore meant setting up uniform rules, urging their adoption and, necessarily, leaving their application to those in charge, to be observed or not.

The elevation of the standard of surgeons who work in hospitals should have been coincident with these attempted betterments of facilities, for any hospital service is the shadow of those who work in it. Standardization of hospital staffs is simpler than that of either medical colleges or hospitals, and would in itself insure the latter. Permission to enter patients in a hospital should be notice to the world that physicians admitted there are qualified and trustworthy men. The courage of conviction, weighing human life in the balance with the qualifications of those seeking to be trusted with it, is the simple requirement for hospital staff standardization, and should control all hospital managers.

We complain that people exercise faulty judgment in selecting their physicians. How can they determine this question of life or death, or of chronic invalidism, if an authoritative profession fails to fix their seal of approval or disapproval on those from whom they must choose, and if hospital boards fail to discriminate between qualified and unqualified practitioners?

Hospital service should mean to the world that those admitted to it have been approved by an impersonal, national licensing board, similar to our national examining board, whose disapproval might not legally interdict access to hospitals, but whose approval would become an unqualified assurance of uprightness of purpose, at least, with a modicum of medical qualifications.

GROUP PRACTICE

The grouping of physicians for the private practice of medicine is an expression of community need, but it it easily directed to primarily selfish interests. It is a medical ideal for immediate intelligent service, protecting the interests of those served.

Eventually, where financial features are involved the division of earnings and the distribution of patients, with the hiring of fellow physicians as assistants, may suggest that these services have been commercialized and the way be opened for criticisms. Group practice means association of personnel, with segregated service. It conserves time and cultivates special skill. Apparently it is of scientific advantage to those engaged in it. It gives a broader service for a fixed fee than is possible from isolated practitioners. It does not insure great incomes to the members composing it; and it limits the development of initiative and the personal independence of the younger men attached to it.

Group division of practice, which does not preclude the patient's option of selecting a consultant to members of the group, but recognizes equal skill in physicians

not attached, and approves their employment, is ideal both from a professional and from a public point of view. Associated group practice, without a pooling of earnings, should receive public sanction; otherwise a danger pends, for money should come through medicine only from devotion to the vocation first, and from concern for its earnings afterward.

Independent, comprehensive judgment is the bulwark of medical eminence. It is not likely to be exercised by the piece worker in practice, and cannot be matured by distributing the essentials of it among others. Medicine cannot be brought within fixed limits. Skilled technicians in restricted fields are thus developed, but medicine in its fulness is independent thought's outstanding monument. The future of the group in practice will be determined by its attitude to other groups, and toward independent practitioners. If its governing purpose is altruistic, it will endure; if its first purpose is commercial, it will deservedly fail.

THE OCCULT

A curious cult which treats all illness as imaginary has arisen in this cultured city. It soothes the sick by denials, while nature effects a cure or the sufferer passes out, much as a mother assures her frightened child at night that its terrors are dreams and without substance, until realities readjust its disordered fancies.

Although this theory of the "three Graces" is not applied to food or clothing or housing, admits birth but denies death, denies disease and ignores its causes, it has been a lasting comfort to those who are well and finds prepared soil in distress, for "in the shadow of a great affliction, the soul is dumb."

The Christian religion has been taught 2,000 years without recognizing in practice the basic principle of its founder, read in the challenge, "Show me your faith without your works, and I will show you my faith by my works." The human touch of a spiritual man was the professional equipment of a physician the world has worshipped for twenty centuries. Yet His spiritual teachings have been passed to ministers of His gospel, and His miracles of healing have been emulated by doctors of medicine.

As a people, our faith in help through prayer has preserved the tottering reason of millions, until nature has benumbed bereavement or relieved racking pain.

All suffering is mental, whether from organic disease, functional derangement, or assaults on sentiment. The waning life of the tuberculous is cheered by the euthanasia of the disease; the ebbing life of the cancerous is mercifully shortened; but the tortures of neurasthenia kill slowly, often without diagnosis or sympathetic treatment, because grafted on a hidden sorrow, the prostitution of the soul, or a revolt against mental wounds. Consciousness is the sufferer in sickness. Pathology does not distress the unconscious.

LAY HEALING

This is a legitimate field for lay practice, directly within the province of the Christian church and its ordained ministry, but not to be entrusted for a fee, to the ignorant, who sit stolidly by a passing life repeating false assurances by rote.

We must learn to minister to a mind diseased: not alone to alienated faculties but also to sensitized emotions and outraged affections.

Ministers of religion and ministers of health must jointly associate the beneficence of faith with the beatitudes of works, that the whole man may be conserved, and their professions saved also.

The joining of interest, through common channels, by those who would guard public morals, assure public health, and rehabilitate the poor, is the most inviting question of the moment and logically falls to medical men, who should enlist with them the ordained ministry for this world's work.

THE COMMON CONSCIENCE

Those having minds sensitized to impressions from without believe that the public conscience is undergoing an agitation that is new to our generation; that this is indirectly due to reaction in our code of social ethics, and that we must now recognize the struggle between the forces of normal, stabilized mentality and those of the wavering deterioration of the subnormal.

The ethical sense is the last to develop and the first to fail. The multiplying offspring of those who mature in body but not in mind, and so are always children mentally, are making themselves felt in bulk as unstable young women, governed only by thoughts of sex attraction, creatures of a day, to perish through exposure; and in the criminal acts of youth, committed by boys incapable of earning a living by approved methods. These constitute the menace of the "half-man," present in every community. In this favored state the names and addresses of 12,000 feebleminded people are known. A great authority on this subject estimates the number to be ten times that. This city is said to have seventy-seven rooms in its public schools devoted exclusively to backward children. From such as these come the criminal, the prostitute and the insane —the socially impossible group of tomorrow. Their reproduction is unrestricted, and they are purveyors of disease; while in contrast, those higher in the social scale limit births, and struggle for health. Meanwhile the burden of the unfit grows heavier, and the moral plane of the nation is lowered.

The sex appeal to arrested mentality is out of all proportion to the wholesome balance of a normal mind. The moving picture featuring sex instincts appeals to increasing numbers, resulting in multiplied illegitimate production. Thus, schools are maintained by voluntary contribution for study, through suggestion in illicit sexual relations, and their congeners, crime and dependence.

Each state has the same problem, and it is our problem. The legal profession cannot cope with it. True to training, it will be found arrayed, one half prosecuting, one half defending. The church cannot meet it, because only those choosing uprightness go there. The schools have already despaired, because the child is "not all there." Only the physician is in touch with this thing, and he knows the simple remedy needed to restore, by elimination, the higher intellectual balance necessary to national integrity. He recognizes these contending forces in race development and decay. He has many times voiced warnings of a parting of the social fabric, but the decline of a nation's mentality goes on, unheeded and unrestricted.

Theoretically, we should expect our enfranchised women to rise against the moron rapist, or the possible introduction of the taint of feeblemindedness into their lines of descent. Practically, the sentimentality of women secretly protests against limiting the so-called privileges of percentage.

There are no rights of parenthood which should, through any process of reasoning, take precedence over

the right of the child to be well born. Certain religious sects, believing that the soul is independent of its physical abode, are unwilling to interfere with its transmission, even through tainted, vicious, weak or criminal channels.

It is not future wars between virile fighting men which we have to fear: it is the deterioration of mind, and the inevitable loss of respect for our individual rights, our traditions and our highest ideals, through a submerging mass-mentality.

We have long known that there may be no relation between education and intelligence, and we can now measure mentality. Why, then, should we permit the importation of millions of half-wits, they to reproduce their kind and soil the life stream of American children?

Community health, physical and mental, is the foundation stone of a nation. Etiology and prophylaxis should therefore engage medicine's first thought. We can no longer limit these terms to acute infectious diseases. They apply equally to the lengthening of the life span, to the upkeep of the man-power necessary to accomplish the world's work, and to the preservation of integrity of mind. There is a new freedom available to this country through medicine, a freedom from epidemic infections and acquired diseases, from the preying of the charlatan, and from the menace of feeblemindedness.

American medicine has its greatest achievements before it. It must go to the crossroads and villages for its vision of service, call in its troopers, and train from the outskirts, toward common centers.

It must prevent disease where possible, relieve it where it occurs, aid in the upkeep of earning power, and contribute its influence to maintaining the integrity of a nation's physical and moral fabric.

I would plead for that spirit of service which governed practitioners of the last century, who, knowing less of medicine, depended more on personal attention than we now do; for the spirit of William McClure, of fiction, confined for a life time to the highland limits of a day's ride; of our own General Gorgas, who converted a slough of death into a resort for health, and turned the traffic of a world; for that which prompted the self sacrifice of Walter Reed, who invited death that others might safely pass; the spirit of thousands of men who have preceded us, whose names were unknown or have long been forgotten, but of each of whom the recording angel wrote, "He went about doing good."

Neither hope of professional advantage nor desire for personal aggrandizement, through the highest office my profession has to give, moves me. But if service to it may strengthen the bond of human sympathy between our people, and the altruism and science of medicine, I shall be content. For, "Of all the work my hand hath wrought beneath the sky, save a place in kindly human thought, no gain have I."

True Diagnosis.—The newer knowledge of disease makes it necessary for the physician to know much more than the meaning of symptoms, or even the name of the chief disease. For purposes of statistics we have to give a single name to each disease, but true diagnosis from the standpoint of treatment consists in determining not only the possible diseases of all organs, but also, and even more, the physiological function of all, including those not actually diseases. This is expressed by saying we treat the patient, not the disease. There are no diseases, only people with diseases.—G. Dock, *J. Missouri M. A.* **18**:83, 1921.

EXERCISE TOLERANCE OF CHILDREN WITH HEART DISEASE

AS DETERMINED BY STANDARDIZED TEST EXERCISES *

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The importance of exercise in the development of a growing child is unquestioned. Recently, it has been conceded that the restriction of the activities of a child with only a systolic murmur is not only unjustified but harmful. Moreover, there is now a growing appreciation of the necessity for a wider latitude in the regulation of the life of a child with heart disease. There still remains, however, among the profession as well as the laity, an unwarranted fear of exercise for the child with chronic organic heart disease. This attitude may be explained in part by the previous conception that cardiac failure was due to a mechanical factor, per se, and to the emphasis, correctly given, to rest in the acute stage and in convalescence. In greater measure, however, it is doubtless due to difficulty in estimating the functional capacity of the heart.

As the value of exercise for children with chronic heart disease becomes more clearly emphasized, the need for normal standards of exercise tolerance becomes more evident. Before estimating the exercise tolerance for any type of exercise in a child with heart disease, it is essential to know the tolerance of a normal child for that particular exercise. A review of the literature does not show any comparative study of this kind.

In a previous study of the circulatory reactions after exercise in twenty normal children,[1] such a preliminary investigation was made, and it was concluded that the exercise tolerance of a normal child could be judged by the clinical symptoms and the type of systolic blood pressure curve following special test exercise.

In the present investigation of exercise tolerance of children with heart disease, the previous study on normal children was utilized as a basis for comparison, and amplified by including results obtained in forty-five additional normal children, thus making it more representative. The objects of the investigation were: (1) to formulate a working table of standardized test exercises from a further observation of clinical symptoms and circulatory reactions following test exercises in normal children; (2) to compare the circulatory reactions after test exercises in the cardiac group with those obtained in the normal group, and (3) to determine the exercise tolerance of children with heart disease to standardized test exercises.

TECHNIC

These investigations were conducted upon:

1. A group of average normal children from 6 to 15 years of age, thirty-three girls and twelve boys, supplementing the previous study on twenty normal children, making a total of sixty-five children, thirty-seven girls and twenty-six boys. The period of observation was from one to six weeks at intervals of from two to five

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* Read in part before the Section on Pediatrics, New York Academy of Medicine, Oct. 7, 1920.

* Read in part before the Association of Cardiac Clinics, New York Academy of Medicine, Jan. 26, 1921.

* From the New York Nursery and Child's Hospital, and the Department of Pediatrics, Cornell University Medical College.

1. Wilson, May G.: The Circulatory Reactions to Graduated Exercise in Normal Children, Am. J. Dis. Child. **20**: 188-198 (Sept.) 1920.

days, averaging from three to twelve tests for each child. A small group was observed monthly over a period of one year.

2. A group of 116 children with heart disease, from 6 to 15 years of age, eighty-four girls and thirty-two boys. The cardiac group included children with all manifestations of organic heart lesions, congenital and acquired, as well as possible and potential heart disease. The period of observation was from three months to one year, averaging from three to twelve tests. Observations were made at intervals of from two to five days, and periodically.

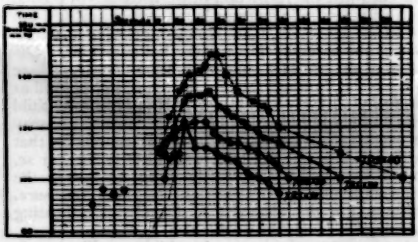

Chart 1.—Typical curves of systolic blood pressure reactions in an average normal child following series of increasing amounts of exercise, at a constant rate of two seconds per swing. Two 7-pound dumbbells swung ten, twenty, thirty and forty times. (In this and in the succeeding charts, controls are noted to the left of the zero line, work to the right of curves; zero line represents the end of exercise.)

Each child was given a complete physical examination, including fluoroscopic tracings of the cardiac silhouette. Careful routine histories and special notes of predisposing factors and exercise tolerance were recorded.

The technic described in detail in the previous study was adhered to. Repeated observations on the pulse rate, systolic blood pressure and clinical symptoms (color, dyspnea and fatigue) following the termination of each test exercise were recorded.

The test exercises utilized were:

1. Swinging two iron dumb-bells (2, 3, 4, 5, 7 and 10 pounds each) from the floor to the full stretch of the arms overhead and back again between the legs at a constant rate of two seconds for each swing. This movement was repeated from ten to forty times to increase the amount of work. Each child performed at each visit two or three of these exercises graded from moderate to severe, until the maximum effort was approached, as evidenced by marked breathlessness, flushed face and fatigue. In all there were forty-seven normal and 116 cardiac children, each receiving three to twenty tests.

2. Stair-climbing tests. Two and four flights of stairs (from twenty-five to sixty steps) with a total rise of 15 and 30 feet, respectively, taken in from twenty to forty seconds. Seventy-four children were tested, twenty-seven normal and forty-seven cardiac, each receiving two or three tests.

3. Jumping rope. Rope was jumped 100 times in 100 seconds. Thirteen children were tested, five normal and nine cardiac.

4. Setting-up exercises. There was a thirty minute drill daily for six weeks by twenty-five children from the cardiac group. Only the clinical symptoms following these exercises were noted.

CIRCULATORY REACTIONS IN THE NORMAL GROUP AFTER TEST EXERCISES

The circulatory reactions following these test exercises in the group of forty-five normal children confirmed in every way the results obtained in the previous investigation (Chart 1).

The circulatory reactions following the staircase test and the rope-jumping test were similar to those obtained in the dumb-bell test.

Of importance is the confirmation of the type of systolic blood pressure curve following test exercises in which the limit of effort is approached. This curve, showing a delayed rise and a prolonged fall, was present in the majority of experiments, and it is, I believe, an important objective sign in determining exercise tolerance. Unusual and bizarre reactions were infrequent, occurring as a rule in children showing a wide range of systolic blood pressure (from 10 to 30 mm.) at rest, or in cases of marked sinus arrhythmia. Occasionally, it was impossible to produce a delayed rise in children who were unable to perform a complete series of exercises because of muscular fatigue. This may have been due to the using of muscles that were poorly developed, or unaccustomed to heavy work.

CIRCULATORY REACTIONS IN THE CARDIAC GROUP AFTER TEST EXERCISES

The circulatory reactions in the group of 116 children with heart disease were similar to those obtained in the normal group, the only variant being the amount of work which produced the reaction in a certain proportion of the cases (Chart 2).

After-Effect on Pulse Rate.—Immediately after exercise the pulse rate showed a rise of from ten to eighty-four beats per minute. The rise seemed proportional to increase of work performed, and maximum rate accompanied maximum amount of work. In the majority of the tests following maximum effort, the pulse rate was normal or subnormal at the end of two minutes, so that the rate at the end of two minutes could not be used as an index of exercise tolerance.

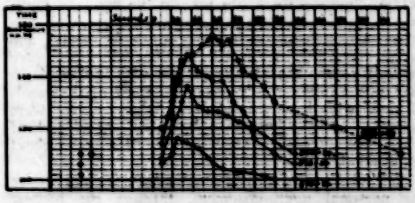

Chart 2.—Typical curves of systolic blood pressure reactions in a child with chronic valvular disease (mitral stenosis regurgitaiton) following series of increasing amounts of exercise at a constant rate of two seconds per swing. Two 5-pound dumb-bells swung ten, twenty, thirty and forty times. This child had a normal tolerance for standardized test exercises.

After-Effect on Systolic Blood Pressure.—Normal curves of systolic pressure following immediately after test exercises which were performed with ease, and without dyspnea or fatigue, show a steep rise a little above the resting level, reaching its maximum summit within from twenty to forty seconds, and falling quickly to the preexercise level within two minutes.

Abnormal curves of systolic blood pressure following immediately after test exercises in which the limit of effort is approached, judging from the degree of

dyspnea and fatigue, show an increased rise from a little below the resting level (or an initial fall) followed by a prolonged period of rising, or delayed rise or summit, reaching its maximum from fifty to 135 seconds, and falling slowly to the pre-exercise level within from three to five minutes (Chart 3). This type of curve was present after moderate test exercises in children with slight symptoms of insufficiency. This is similar to the type of curve obtained in adults with cardiac insufficiency, reported by Dr. Barringer.[2]

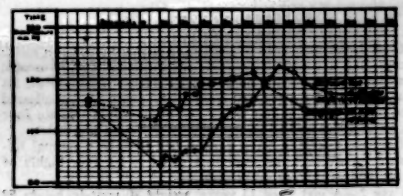

Chart 3.—Abnormal curves of systolic blood pressure reactions in a child with moderate cardiac insufficiency following the dumb-bell test and the staircase test. This child had a poor tolerance for standardized test exercises.

The rise of systolic blood pressure in the dumb-bell test varied from 8 to 60 mm., and was proportional to the increase of work performed. Similar test exercises were followed by similar curves with little variation from day to day.

The circulatory reactions following the staircase test and the rope-jumping test were similar to those obtained in the dumb-bell test. The average rise of systolic blood pressure following the stair-climbing test was from 10 to 34 mm. (Chart 4). The range of increase in the pulse rate was from thirty-four to fifty-two beats per minute. The average range of rise following the rope-jumping test was from 34 to 44 mm., and the increase in pulse rate from twenty-eight to fifty-six beats.

Chart 4.—Comparative normal curves of systolic blood pressure reactions in a child with chronic valvular disease (mitral regurgitation) following average test exercises (dumb-bell test and staircase test). This child had a normal tolerance for standardized test exercises. Solid line, staircase test, four flights, 30 feet, in forty seconds; broken line, dumb-bell test, 5 ds × 20.

WORKING TABLE OF STANDARDIZED TEST EXERCISES

A working table of standardized test exercises was formulated from such exercises as were followed by normal systolic blood pressure curves, not associated with clinical symptoms of dyspnea and fatigue. It was standardized according to age, weight and height, from the observations made on the normal group. The degree of distress and type of systolic blood pressure curve following these standardized test exercises were used as a gage in estimating the exercise tolerance.

Any table of this character naturally must be limited, and its interpretation elastic. However, this table of normal standardized test exercises would seem to be applicable for grading the physical fitness of any group of children. Its primary object was to determine the exercise tolerance of convalescents and ambulatory cardiac patients.

Children with acute carditis are unsuitable for these tests; at least two weeks should elapse after the termination of symptoms before test exercises may be given. The mild test exercise should always be the first test given. A child tolerating the average, or severe test, may be considered to have a normal tolerance (this being the normal range). The dumb-bell test exercise is more practical for office and clinic use. The staircase test is best suited for schools. The type of systolic blood pressure curve is a valuable objective sign in determining exercise tolerance, and is a useful check on personal observation.

STANDARDIZED TEST EXERCISES

Test Exercises	Age in Years	Mean Standard Weight and Height	Simple or Mild			Normal Range: Average			Severe or Strenuous		
			No. of D. B.	Weight, Lbs.	Swings, Times	No. of D. B.	Weight, Lbs.	Swings, Times	No. of D. B.	Weight, Lbs.	Swings, Times
Dumb-Bell Test:											
Swinging two iron dumb-bells from the floor to full stretch of arms overhead and back again between the legs at a constant rate of two seconds for each swing	6-8		2	3	10	2	3	20	2	3	30
			2	4	10	2	4	20	2	4	30
	8-12		2	4	10	2	4	20	2	4	30
			2	5	10	2	5	20	2	5	30
	12-15		2	5	10	2	5	20	2	5	30
			2	7	10	2	7	20	2	7	30
			2	10	10	2	10	20	2	10	30

Staircase Test:	Age, Yrs.	No. of Flights	Rise, Ft.	Time, Sec.	No. of Flights	Rise, Ft.	Time, Sec.	No. of Flights	Rise, Ft.	Time, Sec.
Stairs taken at a steady climb without rest	6-14	2	15	60	4	30	60	4	30	2

	Reaction of Average Normal Children Following Test Exercises		
	To the Mild Test Exercise	To the Average Test Exercise	To the Severe Test Exercise
Color of face (flushed)	.....	+	++
Degree of dyspnea	.....	+	++
Degree of fatigue	.....	.....	+
Rise of systolic blood pressure	10-15 mm.	20-30 mm.	30-60 mm.
Type of systolic curve	Normal	Normal	Normal

OBSERVATIONS OF EXERCISE TOLERANCE IN CHILDREN WITH HEART DISEASE

Any classification of these observations necessarily must be arbitrary. The terms "normal," "fair" and "poor" were used for purposes of convenience.

Twelve of the thirteen children with congenital malformations of the heart had a normal tolerance for standardized test exercises. The one case in which there was a poor tolerance was also a case of hypertension (Case 1).

Of the fifty-eight patients with chronic valvular disease, thirty-six had mitral insufficiency; of these, twenty-three had a normal tolerance and thirteen had a fair tolerance for standardized test exercises.

Of twenty with mitral stenosis and insufficiency, twelve had a normal tolerance, and eight a fair tolerance for standardized test exercises.

Of two with aortic regurgitation and mitral stenosis, both had a normal tolerance.

2. Barringer, T. B.: The Circulatory Reactions to Graduated Work in Normal People and in Those with Cardiac Insufficiency, Am. J. M. Sc. 155: 864 (June) 1918.

Six patients with chronic valvular disease had moderate symptoms of insufficiency; all of these showed a poor tolerance which improved from week to week, as the clinical symptoms of cardiac insufficiency diminished (Case 5).

Of the nineteen patients with possible heart disease with apical systolic murmurs, one had a poor tolerance, the remaining having normal tolerance (Case 4).

Of the twenty potential cardiac patients, all had a normal tolerance.

Children having a normal tolerance for dumb-bell test exercise also had a normal tolerance for four flights of stairs and jumping rope a hundred times. Twenty-five children of the cardiac group having normal and fair tolerance for the dumb-bell test and for the stair-case test were able to tolerate thirty minute setting-up exercises daily for a period of six weeks.[3]

Of the seventy-one children having definite organic heart disease, without symptoms of cardiac insufficiency, 69 per cent. had a normal tolerance for standardized test exercises, 29 per cent. had a fair tolerance, and 2 per cent. had a poor tolerance. Of the entire cardiac group of 116 children, only 8 per cent. were found to have poor tolerance.

As long as the clinical picture remained constant, the exercise tolerance remained the same. Clinical improvement was accompanied by increased tolerance, and the occurrence of infection by diminished tolerance. Children who had been unduly restricted showed diminished tolerance, which quickly increased on being permitted free play. The type of lesion, the valve involved, or the size of the heart did not seem to bear any definite relation to the exercise tolerance in these experiments. In many instances children with heart disease of long duration, accompanied by marked hypertrophy, had a greater tolerance than children with heart defects, or heart lesions of shorter duration with less hypertrophy. Children having a normal or fair tolerance attended school and were allowed free play, as long as they remained well and kept within their reserve. In no instance, in these experiments, could cardiac failure be attributed to overexertion.

Of a total of 116 cases there were three fatalities during the period of observation. One was due to a complicating tuberculosis, and two to further rheumatic carditis following tonsillitis. This would seem to coincide with the statement made by Poynton and Paine [4] in 1914 that "when failure of compensation occurs in cardiac disease, it is rarely due to mechanical overstrain, but to relapsing rheumatism." Lewis [5] likewise states that "infection has more to do with cardiac failure than has strain, or a mechanical defect in the heart itself."

Peabody [6] and others have demonstrated in adults with heart disease that the vital capacity may be considered as a quantitative index of the state of cardiac efficiency. In view of this it seemed of interest to ascertain whether these findings would obtain in children with heart disease, and if so, whether they would corroborate the observations made in this investigation. To that end a separate study was undertaken. It is of interest to record that the children of this group showing a normal exercise tolerance were found to have also a normal vital capacity. This study will be reported in detail in another paper.

3. These children were observed at the Summer Model Ethical Culture Play School.
4. Poynton and Paine: Researches on Rheumatism, London, J. Churchill, 1913, p. 64.
5. Lewis, Thomas: The Soldier's Heart and the Effort Syndrome, New York, Paul B. Hoeber, 1919, p. 37.
6. Peabody and Wentworth: Vital Capacity of the Lungs and Its Relation to Dyspnoea, Am. J. M. Sc. 156: 108 (Jan.) 1918.

ANALYSIS OF CASE HISTORIES

An analysis of the case histories of the cardiac group shows that in 90 per cent. the children were excused from school exercises. In 83 per cent. free play had been interdicted by either physician or parent, but nevertheless 62 per cent. admitted ability to tolerate stairs and games equally well with playmates. A history may give important information as to ability to tolerate exercise. However, as indicated above, such information may be misleading, particularly in children, and should be verified.

The following five cases are illustrative:

CASE 1.—A girl, aged 9 years, weight 50 pounds, height 54 inches, had a congenital cardiac malformation. Fluoroscopic examination revealed a moderate transverse enlargement, Pa plus. She had been excused from school exercises, but allowed free play, and, according to her statement, could tolerate four flights of stairs and all games equally well with playmates.

Exercise tolerance tests showed her to have a normal tolerance for average test exercises (5 ds × 20, four flights of stairs, and setting-up exercises).

CASE 2.—A girl, aged 13 years, weight 80 pounds, height 58 inches, with chronic valvular disease (mitral regurgitation), gave a definite rheumatic history, with a cardiac involvement of nine years' standing. Fluoroscopic examination revealed a first degree enlargement, left plus, muscle plus. She had been excused from school exercise and forbidden free play, but admitted to tolerating games equally well with playmates, as well as two flights of stairs.

Exercise tolerance tests showed her to have a normal tolerance for strenuous test exercises (5 ds × 30, four flights of stairs, rope 100 times, and setting-up exercises).

CASE 3.—A girl, aged 11 years, weight 56 pounds, height 51 inches, gave a definite rheumatic history, with cardiac involvement of five years' duration, mitral stenosis and regurgitation. Fluoroscopic examination revealed a second degree enlargement; left two plus, right one plus, muscle three plus. She had been excused from school exercise, and forbidden free play, but admitted to tolerating games equally well with playmates, and four flights of stairs.

Exercise tolerance tests showed her to have a normal tolerance for severe test exercises (5 ds × 30, four flights of stairs, rope 100 times, and setting-up exercises).

CASE 4.—A girl, aged 12 years, weight 70 pounds, height 50 inches, was referred by the school nurse as a cardiac. Although she gave no definite rheumatic history, she had had influenza the previous winter. Examination revealed a systolic murmur at the apex not transmitted, with no evidence of cardiac enlargement. Fluoroscopic examination disclosed slight flabbiness of muscle, with a questionable enlargement. She stated that she took part in all games and was able to tolerate four flights of stairs.

Exercise tolerance tests showed her unable to tolerate mild test exercises (5 ds × 10, or two flights of stairs, or rope 100 times). She was, however, apparently able to tolerate setting-up exercises. After a period of five months she was able to tolerate severe test exercises (5 ds × 30). Fluoroscopic examination at this time revealed transverse plus, muscle good.

CASE 5.—A boy, aged 11 years, weight 114 pounds, height 60 inches, gave a history of chorea in 1917 and in 1918, and until May, 1920, did not show any cardiac involvement on repeated examination.

Exercise tolerance tests up to May, 1920, showed him to have a normal tolerance for severe test exercises (5 ds × 30).

May 15, he developed severe tonsillitis, and was in bed for one week. June 3, the patient was seen and showed noticeable pallor; his only complaint was fatigue. On examination, he was found to have no definite cardiac involvement except an impure first sound. Exercise tolerance tests at this time showed him unable to tolerate average test exercises (5 ds × 20).

The patient was put to bed and seen again two weeks later, when he was found to have a soft systolic murmur at the

apex. Fluoroscopic examination revealed a slight transverse enlargement, and flabby muscle suggesting dilatation. At this time he was unable to tolerate mild test exercise (5 ds × 10). From this time on exercise tolerance tests at two-week intervals showed gradually improved tolerance for standardized test exercises until September 26, when he was found to tolerate average test exercises (5 ds × 20). He was then permitted to be up and about, but has not, as yet, recovered the tolerance which he showed before his cardiac involvement.

CONCLUSIONS

1. The circulatory reactions after test exercises in forty-five normal children, and in 116 children with heart disease, confirmed the results obtained in the twenty normal children of the previous study, in all essential points.

2. A working table was formulated of standardized test exercises followed by normal systolic blood pressure curves, without symptoms of dyspnea and fatigue. It was standardized from an analysis of the reactions of an average group of sixty-five normal children according to age, weight and height.

3. The degree of distress and type of systolic blood pressure curve following standardized test exercises was used as a gage in estimating the exercise tolerance of children with heart disease.

4. Of the seventy-one children having definite organic heart disease, without symptoms of insufficiency, 69 per cent. had a normal tolerance for standardized test exercises, 29 per cent. had a fair tolerance, and 2 per cent. had a poor tolerance.

5. In children with chronic organic heart disease, exercise tolerance tests give important and useful information which may be utilized as a scientific basis for intelligent regulation of the child's activities. The observations resulting from this investigation would seem to indicate that the fear of exercise is unwarranted, and that a wider latitude may be permitted with safety.

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THE NEW ERA IN PEDIATRICS*

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Not long ago the physician treated the disease, such as typhoid, pneumonia or measles. Now progressive medical men treat the patient. But this concept in turn will not suffice. Medicine of the new era concerns itself not only with the disease, with patient plus disease, but also with the environment and living conditions.

Medicine of the future will recognize that disease is not simply a matter of bacteria, nor of bacteria and patient's resistance, but of bacteria and patient's resistance as influenced by environment, or often no bacteria, but simply patient and environment. Of all specialties, this point of view is particularly adapted to pediatrics.

A well baby, clothed in a shirt and diaper, will remain well and happy during the hottest summer weather. Overclothe this child, let him suffer from retained heat, and he will react with severe diarrhea, and collapse. Here physical diagnosis is valueless. Inspection of the stools is a waste of time. Bacteriologic examination of the food may lead one astray. The diagnosis is made by considering the environment, and in this case a searching history reveals the secret.

In our work we have repeatedly seen a change of nurses result in an upset of every child in the ward. This is so invariable that it is no coincidence. Without this experience one might easily be confused by such cases as the following: A baby of 3 months, thriving well on the bottle, suddenly became peevish and irritable, and began to vomit. The feeding formula had been unchanged. Physical examination was negative. Examination of the environment, however, that is, the history, revealed a change of nurse maids. In two days, with absolutely no treatment other than a closer acquaintance with the new nurse, the baby was well.

The classical example in pediatrics of the influence of environment is the condition known as anorexia nervosa. An infant, previously well, ceases to eat, or even shows an actual aversion to food and pushes away in disgust the spoon with cereal or vegetable. If the spoon is forced into the child's mouth, he vomits. The resulting loss in weight may be extreme enough to cause cosiderable emaciation, and is terrifying to the parents.

General history and physical examination prove nothing except that the patient is an only child or a premature child, somewhat neuropathic in disposition. What is the etiology? It is found largely in environment. The parents and often the grandparents have concentrated their entire battery of affection and solicitude on this one offspring. He responds at once to this tension, and the immediate reaction is loss of appetite. A change of environment is worth barrels of tonics in effecting a cure.

These are relatively simple cases. A problem more complex was that of a persistent, dry hacking cough of some months' duration in a boy, aged 8 years. He had been to various physicians, had taken quantities of medicines, and even had been under the care of a Christian science practitioner.

There was nothing exceptional in the general history and physical and laboratory examination. The chest itself was negative. The dry, hacking nature of the cough suggested a nervous element. The father himself was somewhat neurotic. Could there be anything else in the environment? Investigation disclosed that the parents were greatly worried about the condition, and spoke constantly of the cough in the boy's presence. They had kept him indoors for some weeks and, to cause him to relax, had given him a hot bath every night. To overcome the nervous element, parents and child were advised to forget the cough entirely. All medicine was to be stopped. The general measures to be taken were entirely those of building up the boy's resistance. In favorable weather he should go outdoors. He should have abundant rest and good food. Hot baths were to be replaced gradually by tepid, and later cool sponges. Within two weeks the boy was well.

In another case a chronic cough was due to the child's mimicking of a nurse clearing her throat.

A more complex example would be that of an obscure gastro-intestinal affair. This might be a reflex from improper vision, which in turn might be due to faulty methods at school.

One could go on indefinitely. As I look to the future I wonder whether, in our intense specializing, we are not becoming too narrow. Even in the new tendency toward group practice lie these inherent dangers. Somewhere must be the man who, in his examination,

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combines interest in the pathology of definite organs with interest in the patient himself. I believe that the great physician of the future will be he who by his studies has gained an increased knowledge of his specialty, but who, in his attitude to his patient, in his devotion to the ideal of true service, still retains the spirit of the family physician.

The mighty changes in our medical philosophy will become apparent to the distant observer of our profession. The new era of pediatrics will witness what one might fancy as the "passing of the age of pathology." On the one hand, pile all the great contributions to our better understanding of factors of etiology; on the other, stacks of data concerning physiology and function. The former has developed the great field of preventive medicine; the latter has influenced the entire matter of diagnosis from "What are the anatomic changes in this organ?" to "What work can this organ perform?" The former was seized upon by pediatricians in developing the brilliant idea of "infant welfare"; the latter has been employed by children's men in developing methods of treatment infinitely superior to anything in the past.

By no means must we be blind to the invaluable pathologic knowledge and studies handed down to us, and those which are to come. As students, however, we were taught that almost the greatest essential for medical practice was a knowledge of pathology. Now, in our larger interest in the child's whole welfare, many pathologic problems fade into insignificance. When, by pouring a little oil on the water, we can blot out whole districts of malaria and yellow fever, the pathology of these diseases becomes of only academic interest. Who but the most ardent student cares much about the changes due to hookworm, when proper shoes free whole countries of the scourge? If boiled or chlorinated water, screens, and a few injections of vaccine eradicate typhoid from the army, the typhoid spleen and ulcers pass into history. Pathologic symptoms, gastro-intestinal, bronchial or circulatory, which some years ago would have led to the most learned discussions as regards morbid anatomy, are now brushed aside. The pathology in itself may be of interest, but it is of no practical import, for the etiology lies in easily corrected conditions of environment, as improper feeding, improper hygiene of the home, insufficient sleep, or unknowing neglect on the part of the parents.

In the idea of keeping our patients well, pediatrics is again in the lead. Until recently medical men were interested exclusively in the sick. A well baby was absolutely to be neglected. Only by the wails of midnight colic or the terrifying whoops of pertussis could he attract the attention of his medical friends. What is really the most gratifying field of medicine—that of prevention—has been left to the public agencies of the city and the state, while the practitioner overlooks this field entirely or gives an occasional disinterested public lecture. To pediatricians, however, this preventive work arising from the fuller understanding of etiology can easily be incorporated in daily practice, for much illness results from improper feeding. Infant welfare societies, working in a spirit of prevention, have reduced infant mortality by incredible figures. The time is now ripe to preach the benefit of this to our private patients. Some of us in Chicago are attempting this. We wish to see the babies, no matter how well, at least once a month, and offer our services for the sake of keeping the children well, rather than awaiting their illness. Though this idea is just at its beginning, it offers a great future. I find it in its results the most gratifying and satisfactory feature of my entire work.

Not only, however, does pathology in many instances become insignificant before etiology; it is often rudely brushed aside by the advances of practical physiology.

To the medical man of the future, far more important than the problem "What are the pathologic findings in this intestine, in this heart, in this kidney?" will be the diagnosis of "What is the tolerance of this intestine to food, the capacity of this heart or this kidney for work?" The community will demand of us that we apply all our skill in keeping the child at play or at school, the adult at work. This physiologic point of view has given rise to a change in our conceptions of therapy infinitely more fortunate than anything developed from the pathologic standpoint. Physiologic studies considering the importance of function draw attention to the patient *as a whole*. Often in attempting to improve the function of an organ we do so by neglecting the specific organ entirely and accomplishing our result indirectly through influencing the body as a whole. Such a procedure was first attempted timidly by the pediatricians in certain types of infantile diarrhea, and I myself have become so enthusiastic about this procedure that I am attempting the same thing in my little patients suffering with heart and kidney abnormalities.

Take the question of stools, for instance. As students we were all taught the vital importance of stool examination. This is still the creed of many pediatricians, particularly those of the East. Thinking more from the physiologic than the pathologic standpoint, one may to a considerable degree disregard their significance. Certainly an abnormal stool is a symptom of something wrong in the alimentary tract. Reasoning pathologically, one examines this stool, discovers undigested food, and restricts the diet to overcome this failure of digestion. Physiologically, and with an interest in the whole patient above that of a single organ, one may reason: "Certainly there is a disturbance of digestion. Perhaps the gastro-intestinal tract is suffering from the same lack of nutrition as the whole body. In an undernourished child, if we increase the diet in a way not to damage the alimentary tract, perhaps this latter will improve proportionally to the improvement of the child's general condition." Thus, a diet which might be absolutely contraindicated from the standpoint of pathology of the gastro-intestinal tract might, from the standpoint of the patient as a whole, be marvelously successful.

It is interesting to note that this changing philosophy was adopted by several great thinkers at about the same time. While Finkelstein was revolutionizing our ideas of infant feeding and preaching, "Don't treat the stools, treat the baby," so was Mackenzie revising our conceptions of cardiac conditions. Those of us in military service learned the wisdom of his writings. His work might be summarized, "Treat the patient as well as his heart." No matter if there be a murmur, if there be enlargement, if there be irregularity, if the patient feels better and happier by exercise, then his activities should not be restricted. Again, we see physiology taking precedence over pathology. Far more important than the knowledge of the anatomic defect is the estimation of function, that is, how much work the patient may do.

V. 19

And so it is with kidney work. Many times have I seen a nephritis in a child improve on a full salt free diet, while a restricted meal was without value. The same fundamental philosophy was followed. Thinking of the whole child before any one particular organ, one reasoned that in the resulting benefit to the child's whole nutrition the kidney would also improve. This happens in many cases unless the kidney is so damaged that it absolutely cannot care for the food given. The idea of a restricted diet preventing the development of nephritis in scarlet fever has long been overthrown by Pospischill, and in my own postgraduate work in Vienna I was able to show that those children given full diets, that is, thinking first of the whole child, came through the disease with less nephritis and in much better physical condition than those whose food was restricted.

The secret of success in this physiologic method of treatment is the careful estimation of the function of an organ. The patient's general nutrition must be improved to the utmost, but in a way so as not to injure the organ one wishes to aid. Thus, in following such a procedure one must not give food above the tolerance of a diseased intestine or kidney, or give exercise too severe for an injured heart.

So here we are back once more to the spirit of the family practitioner in the knowledge of the physiologic capacity of each individual patient; only, in addition to knowledge of his patient, our specialist of the future must understand the basic pathologic and physiologic "Why."

These I believe to be some of the advances of the future. Pathology will bow before the great strides of etiology, with its attendants, preventive medicine and infant welfare. Pathology must bow before physiology, which has emphasized the importance of function; which has made us think not of an isolated organ but of that organ in relation to the whole body; which has developed a rather revolutionary idea of treatment.

The future will see medical men adopting something of the spirit of social service in their private work. More detailed and searching histories will disclose diagnoses never revealed by the most painstaking physical examination.

I believe that we must learn to view our patients from some little distance. I believe that we must learn to regard our own work and profession, not through the magnifying power of our own eyes, but with the perspective offered through the eyes of the community.

Chicago Beach Hotel.

Official Warning Against Nostrum.—The government of the state of Anhalt in Prussia published in a recent issue of its official organ, the *Amtsblatt für Anhalt*, a warning against the use of "Rad-Jo," explaining that the advertising of this preparation has no official sanction although the advertisements are found in railroad and street cars and in postoffices in various parts of the country. The public health authorities of Schwerin also published recently in the Mecklenburg dailies a warning against the use of "Rad-Jo," saying that it is designed merely to exploit the public. The "Rad-Jo" company and the manufacturer, Wasmuth, brought suit against the official who had signed the warning. But the Hamburg court and the court of appeal before which the suit was brought cast it out, saying there were no grounds for action, the official warning against the purchase of "Rad-Jo" being absolutely justified. The canton of Zurich in Switzerland prohibited some time ago the advertising and sale of "Rad-Jo."

WASSERMANN TEST WITH SECRETIONS, TRANSUDATES AND EXUDATES IN SYPHILIS

WITH A NOTE ON THE ORIGIN OF THE COMPLEMENT FIXING ANTIBODY *

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There is a paucity of knowledge concerning the Wassermann reaction with the secretions and other fluids excepting the serum and spinal fluid of individuals infected with syphilis. In a previous communication,[1] the results of Wassermann tests performed with the urines from sixty acute cases of syphilis were given. In this investigation only two of the sixty cases gave a positive reaction. It is our purpose here to record the results of the Wassermann reaction performed with milk, saliva, seminal fluid, exudates and transudates from syphilitics.

TECHNIC

As in complement fixation tests employing urine, the anticomplementary activity of milk, saliva and seminal fluid required very careful control. In every instance we have found it necessary to titrate each specimen for the purpose of determining the smallest amount producing begining inhibition of hemolysis, which was designated as the anticomplementary unit; in conducting the complement fixation tests one half or less this amount was employed.

Despite a large number of tests with milk, saliva and semen freshly collected we could arrive at no fixed amount proving satisfactory for the Wassermann test; as previously stated, each specimen required preliminary titration for anticomplementary activity. We believe this fact is worthy of emphasis as being a possible explanation for some of the positive Wassermann reactions reported by others with milk and urine, due to nonspecific rather than specific fixation of complement.

In our tests all specimens of milk, saliva and seminal fluid were used unheated in order to avoid the destructive influence of heat on any antibody that may have been present. A number of comparative tests with unheated and heated portions of milk, saliva and seminal fluid showed that the antilysins were largely thermostabile, the anticomplementary units of heated portions being but slighty influenced.

All tests were conducted with an antisheep hemolytic system and a primary incubation of one hour in a water bath. All specimens were first titrated for anticomplementary activity. A cholesterolized alcoholic extract of heart was employed as antigen in all tests; and if the amount of fluid was sufficient, additional tests were conducted at the same time with an alcoholic extract

* From the Dermatological Research Institute.
* Investigation aided by funds accruing from the preparation of arsphenamin.

1. Klauder, J. V., and Kolmer, J. A.: The Urine in Syphilis, Report of Laboratory Studies Including the Wassermann Reaction in Sixty Cases, J. A. M. A. 76: 242-246 (Jan. 8) 1921.

of syphilitic liver and an extract of acetone insoluble lipoids.

Wassermann tests with the heated serum of each patient were conducted with the same antigens and with the same technic.

WASSERMANN REACTION WITH MILK

We performed the Wassermann reaction on the breast milk from nineteen syphilitic women. In the majority of cases the milk was obtained at variable periods after childbirth; in some the milk was obtained during the last month of pregnancy. The majority of the women were untreated and presented no clinical evidence of syphilis. The duration of the disease was variable. However, some presented secondary and late secondary skin lesions. All patients had a positive Wassermann reaction of the blood; in the majority the reaction was + + + + with three antigens.

The Wassermann reaction with milk has been studied and positive results obtained by Bab,[2] Bar and Daunay,[3] Thomsen,[4] and more recently by Rojas.[5] Thomsen, in 1910, reported his results obtained with milk from fifty-three syphilitic women. Of this number the milk was positive in fifty-two cases and the blood in thirty-three cases. The reaction with milk was stronger than the blood reaction in all but eleven cases. In performing the Wassermann reaction with milk he employed 0.2, 0.1, 0.05, 0.025, 0.012 and 0.006 c.c. In a few instances a positive reaction was obtained in the dilution of 0.012 c.c. In 200 nonsyphilitic control cases a positive Wassermann reaction with milk was obtained in ninety-six cases in which 0.2 c.c. of milk was employed, and in six cases in which 0.1 c.c. was employed. In view of these results, Thomsen regards

TABLE 1.—ANTICOMPLEMENTARY ACTIVITY OF UNHEATED HUMAN MILK AND RESULTS OF WASSERMANN TESTS *

Case	Clinical Diagnosis	Time After Childbirth	Anti-complementary Units, C.c.	Wassermann Tests † Amount Used, C.c.	Results
1	Late secondary syphilis	60 days	0.6	0.4	—
2	Tertiary syphilis	1 mo.	0.8	0.6	—
3	Tertiary syphilis	.....	0.6	0.2	+
4	Tertiary syphilis	.....	0.5	0.4	—
5	Late secondary syphilis	.....	0.8	0.4	—
6	Tertiary syphilis	.....	0.8	0.6	—
7	Tertiary syphilis	.....	0.8	0.4	—
8	Tertiary syphilis	.....	0.8	0.5	—
9	Tertiary syphilis	.....	0.8	0.4	—
10	Tertiary syphilis	.....	0.8	0.4	—
11	Tertiary syphilis	.....	0.9	0.5	—
12	Tertiary syphilis	.....	0.6	0.4	—
13	Tertiary syphilis	.....	0.9	0.6	—
14	Secondary syphilis	1 mo.	0.6	0.4	—
15	Tertiary syphilis	2 mo.	0.8	0.5	—
16	Tertiary syphilis	2 mo.	0.9	0.5	—
17	Secondary syphilis	7 days before childbirth	0.5	0.3	—
17	Secondary syphilis	3 days	0.5	0.3	+ +
17	Secondary syphilis	3 wks.	0.7	0.4	—
18	Tertiary syphilis	4 days	0.5	0.2	—
19	Tertiary syphilis	5 days	0.35	0.2	+ +

* All patients gave a + + + + blood Wassermann reaction.
† Conducted with a cholesterolized alcoholic extract of heart.

the Wassermann reaction with milk as only quantitively specific, but as diagnostic when used in amounts smaller than 0.1 c.c. He recommends examining the milk within five days after childbirth. According to Thomsen, not only is the Wassermann reaction a useful supplement to the serum reaction, but the absence of the milk reaction is important evidence against the assumption of syphilis, since this reaction is not influenced by mercurial treatment.

More recently, Rojas [5] reported his results with the Wassermann reaction performed with milk obtained from twenty-eight syphilitic women. The milk was collected during the last few months of pregnancy and within the first five days after childbirth. Milk was used in amounts of 0.2, 0.1 and 0.05 c.c. The reaction was regarded as positive only when it appeared in the second tube (0.1 c.c.). In seven cases the reaction was distinctly positive in both the milk and the blood; the reaction was more pronounced in the milk in three of the cases. In six cases the reaction was negative in the blood and weakly positive in the milk. In four cases the reaction was negative in both the blood and the milk. In the remaining cases the results of the reaction were variable.

TABLE 2.—ANTICOMPLEMENTARY ACTIVITY OF UNHEATED SALIVA AND RESULTS OF WASSERMANN TESTS *

Case	Diagnosis	Lesions in Mouth	Anti-complementary Units, C.c.	Wassermann Tests † Amount Used, C.c.	Results
1	Late secondary syphilis	None	0.2	0.1	—
2	Primary syphilis	None	0.2	0.1	—
3	Tertiary syphilis	None	0.2	0.1	—
4	Secondary syphilis	Profuse	0.2	0.05	+
5	Secondary syphilis	Few	0.3	0.2	—
6	Secondary syphilis	None	0.2	0.1	—
7	Late secondary syphilis	Few	0.3	0.1	—
8	Late secondary syphilis	None	0.4	0.2	—
9	Late secondary syphilis	Few	0.12	0.1	—
10	Late secondary syphilis	None	0.14	0.1	—
11	Late primary syphilis	None	0.08	0.05	—
12	Late secondary syphilis	None	0.08	0.06	—
13	Tertiary syphilis	None	0.15	0.1	—
14	Late secondary syphilis	Few	0.09	0.06	—
15	Tertiary syphilis	None	0.12	0.08	—
16	Tertiary syphilis	None	0.2	0.1	—
17	Late secondary syphilis	Few	0.15	0.1	—
18	Late secondary syphilis	None	0.15	0.1	—
19	Secondary syphilis	Few	0.5	0.4	—
20	Secondary syphilis	Few	0.15	0.1	—

* All patients gave a + + + + blood Wassermann reaction.
† Conducted with a cholesterolized alcoholic extract of heart.

The results of our tests are shown in Table 1. With the technic employed, fresh human unheated milk was anticomplementary in amounts varying from 0.5 to 0.9 c.c. Tests conducted with one half and even slightly more of these anticomplementary amounts yielded negative reactions with the milks of all women excepting three, two of whom were tested within five days of delivery (Cases 17 and 19). The milk in Case 17 gave negative reactions before and three weeks after delivery.

WASSERMANN REACTION WITH SALIVA

We know of no report in the literature in which the Wassermann reaction was performed with saliva.

We have conducted the test with the saliva from twenty patients with syphilis. The majority were untreated and in the secondary period of the disease, some having mucous patches in the buccal cavity. The blood Wassermann reactions of all patients were + + + + with three antigens. The results are shown in Table 2. Saliva proved extremely anticomplementary both unheated and heated. In order not to destroy possible traces of antibody each was used unheated, titrated for anticomplimentary activity and used in an amount corresponding to almost one-half the anticomplementary units.

All of the reactions were negative excepting one (Case 4) which gave a weakly positive reaction under

2. Bab, Hans: Kongenitale Syphilis und Spirochaeta pallida, Ztschr. f. Geburtsh. u. Gynäk. **60**: 161-211, 1907.
3. Bar, P., and Daunay, R.: Recherches sur le séro-diagnostic de la syphilis chez la femme enceinte et l'enfant nouveau-né, L'Obstetrique **14**: 260-276, 1909.
4. Thomsen, O.: Die Bedeutung der positiven Wassermannschen Reaktion mit Frauenmilch für die Wahl einer Amme, Berl. klin. Wchnschr. **47**: 1743-1746, 1910.
5. Rojas, O. A.: The Wassermann Reaction in Breast Milk, Semana Med. **26**: 100-103, 1919.

conditions in which a true rather than a nonspecific reaction probably occurred (saliva used in one-quarter anticomplementary unit). It is to be noted that this patient had a profuse eruption on the buccal mucosa.

WASSERMANN REACTION WITH SEMINAL FLUID*

We have not been able to find any references in literature to the Wassermann test with seminal fluid. We have conducted the test with the seminal fluid from thirty patients with syphilis. These patients were in all stages of the disease, from the late primary stage to many years after infection. The majority were previously untreated, and a considerable number were in the acute stage. All the patients had a positive blood Wassermann reaction, the majority giving ++++ reaction with three antigens.

In some of the married patients there was a history suggestive of the transmission of syphilis to the spouse and progeny. In still others the blood Wassermann reactions of the spouse and progeny were ++++.

The results are summarized in Table 3; the Wassermann reactions of the seminal fluids were negative in all the cases except one (Case 4). This patient was 40 years of age and was infected twelve years ago. The blood Wassermann was +++. His wife gave a ++++ reaction. The seminal fluid yielded a ++ reaction with the cholesterolized antigen, 0.4 c.c. of unheated seminal fluid being used; the reaction was negative with the alcoholic and acetone insoluble antigens.

TABLE 3.—ANTICOMPLEMENTARY ACTIVITY OF UNHEATED SEMINAL FLUID AND RESULTS OF WASSERMANN TESTS*

Case	Diagnosis	Anti-complementary Units, C.c.	Wassermann Tests† Amounts Used, C.c.	Results
1	Neurosyphilis	0.5	0.2	—
2	Late secondary syphilis	1.5	1.0	—
3	Tertiary syphilis	0.6	0.4	—
4	Tertiary syphilis	0.7	0.6	++
5	Tertiary syphilis	0.9	0.6	—
6	Secondary syphilis	0.8	0.5	—
7	Tertiary syphilis	0.4	0.2	—
8	Late secondary syphilis	0.5	0.4	—
9	Tertiary syphilis	0.8	0.5	—
10	Tertiary syphilis	0.6	0.4	—
11	Secondary syphilis	0.3	0.2	—
12	Tertiary syphilis	0.5	0.3	—
13	Tertiary syphilis	0.4	0.2	—
14	Tertiary syphilis	0.5	0.3	—
15	Tertiary syphilis	0.4	0.2	—
16	Secondary syphilis	0.5	0.3	—
17	Secondary syphilis	0.3	0.2	—
18	Secondary syphilis	0.4	0.2	—
19	Tertiary syphilis	0.4	0.2	—
20	Secondary syphilis	0.4	0.2	—
21	Secondary syphilis	0.4	0.2	—
22	Tertiary syphilis	0.4	0.2	—
23	Secondary syphilis	0.5	0.3	—
24	Tertiary syphilis	0.6	0.3	—
25	Secondary syphilis	0.6	0.3	—
26	Secondary syphilis	0.4	0.2	—
27	Tertiary syphilis	0.25	0.1	—
28	Tertiary syphilis	0.25	0.2	—
29	Late secondary syphilis	0.18	0.1	++‡
30	Late secondary syphilis	0.18	0.1	—

* All patients gave a ++++ blood Wassermann reaction.
† Conducted with a cholesterolized alcoholic extract of heart.
‡ Very probably a nonspecific anticomplementary reaction.

WASSERMANN REACTION WITH AQUEOUS FLUID FROM ANTERIOR CHAMBER OF EYE†

We know of no report in the literature in which the Wassermann test was performed on the aqueous fluid. In our series the test was performed on ten different specimens obtained from patients who were in the tertiary period of syphilis with variable clinical manifestations of the disease. Some patients presented a syphilitic involvement of one or the other structures of the eye, and others were neurosyphilitics with a positive spinal fluid Wassermann reaction. In most of the cases the fluid was obtained at the time of an operation on the eye. The blood Wassermann reaction was positive in all cases except one; this patient presented a uveitus thought to be of syphilitic origin (the Wassermann test of the spinal fluid was also negative).

TABLE 4.—THE WASSERMANN REACTION WITH BLISTER FLUIDS*

Case	Diagnosis	Blood Wassermann Reactions C. B. H.	S	A	Blister Fluid Wassermann Reactions C. B. H.	S	A
1	Secondary syphilis	++++	++++	++++	++++	++++	++++
2	Paresis	++++	++++	++++	++++	++++	++++
3	Secondary syphilis	++++	++++	++++	++++	++++	++++
4	Secondary syphilis	++++	++++	++++	++++	++++	++++
5	Latent syphilis	++++	0	0	++++	0	0
6	Secondary syphilis	++++	++++	++++	++++	++++	++++
7	Tabes dorsalis	++++	++++	++++	++++	++++	++++
8	Tertiary syphilis	+++	+	+	+++	+	+

* C. B. H., cholesterolized alcoholic extract of heart; S, alcoholic extract of syphilitic liver; A, acetone insoluble lipoids.

In this series of cases the Wassermann reactions were negative in all but two cases, and in these the reactions were doubtfully positive. Probably the high percentage of negative reactions was due to the very small amounts of fluid available for the tests. It is reasonable to expect a positive Wassermann reaction with the aqueous humors of those syphilitics whose spinal fluids yield positive reactions, and especially if active eye lesions are present (as, for example, iritic eruptions during the secondary stage).

THE WASSERMANN REACTION WITH EXUDATES AND TRANSUDATES

The Wassermann test was conducted with the fluids obtained from blisters produced on the skin with cantharides plaster, and in one instance with pleural fluid from a syphilitic. Blister fluids were obtained from patients who were in variable stages of the disease. The blood Wassermann tests yielded different degrees of positive reactions, and the blister fluids were positive in all and the degree of positive reaction closely paralleled the reaction obtained in the blood from the same patient.

The pleural fluid yielded the same degree of positive reaction as was obtained with the serum of the same patient.

A study of the Wassermann test with exudates and transudates from syphilitics has been reported by Roger and Sabareanu,[8] Jacquet and Durand,[9] Wile,[10] and more recently by Riser.[11] In the reports by these writers, blister fluid, arthritic fluid, pleural fluid, ascitic fluid, pericardial fluid and edema fluid obtained through the use of Southey's tubes were examined. The Wassermann reactions were found positive in almost 100 per cent. of these exudates and transudates.

4. Further studies of the seminal fluid in syphilis will be reported in a separate communication as a part of studies on the prenatal transmission of syphilis.

7. This study was conducted at the Episcopal Hospital in collaboration with Dr. Harold Goldberg, ophthalmologist to the hospital, who obtained the aqueous fluid. The Wassermann tests were performed by Drs. C. Y. White and William Egbert Robertson.

8. Roger and Sabareanu: Sur la déviation du complement par les sérosités des syphilitiques, Bull. et mém. Soc. méd. d. hôp. de Paris **29**: 31-37, 1910.

9. Jacquet and Durand: Réaction de Wassermann dans un liquide d'hydarthrose chez un syphilitique, Bull. de la Soc. franç. dermat. et syph. **21**: 244-245, 192.

10. Wile: Personal communication to the authors.

11. Riser: La réaction de Bredet-Wassermann dans les transudates chez les syphilitiques, Ann. de dermat. et de syph., 1920, pp. 452-460.

It is of interest to note that, in some of the cases reported by Riser,[11] necropsy studies of the serous membranes from which the transudates were obtained disclosed no syphilitic involvement; a local origin of the complement fixing antibody was therefore improbable, and the antibody was derived from the plasma of the blood.

The practical value of performing the Wassermann test with blister fluid rather than the blood may be mentioned in passing as particularly applicable in the diagnosis of syphilis in the infant from whom blood cannot be obtained by the usual methods. The method is apparently accurate but technically unsatisfactory by reason of the small amount of fluid available and the disagreeable and painful nature of the blister.

ORIGIN OF THE COMPLEMENT FIXING ANTIBODY

The Wassermann reactions conducted with secretions, exudates and transudates in this study were conducted to determine the origin of the antibody, whether it was hematogenous or whether there occurred a local formation of these substances. If a local formation of Wassermann producing antibodies could be established, the test would be of value in the diagnosis of local syphilitic lesions and would be of considerable clinical value when applied to the seminal fluid of syphilitics to determine their fitness for marriage.

Our knowledge concerning the Wassermann reaction in the spinal fluid is of particular interest in the foregoing regard and therefore can appropriately be reviewed. The complement fixing antibodies in the spinal fluid is, in the light of present knowledge, dual in origin. The presence of these substances in the spinal fluid in neurosyphilis, although less frequent in the vascular types, is doubtless of neural origin, that is, due to the presence of spirochetes in the nervous system and a reaction on the part of the nervous tissue to their presence. This view is substantiated by the not uncommon observation of a positive spinal fluid Wassermann test in neurosyphilis and a negative blood Wassermann in the same patient. On the other hand, these antibodies are in all probability also of hematogenous origin, that is, due to an infiltration from the blood through the choroid plexus. This view is substantiated by the following clinical and laboratory observations: In experiments conducted by Kolmer and Sekiguchi,[12] a positive Wassermann test was obtained with the spinal fluid of dogs after injecting the animals intravenously with human syphilitic serum which yielded a ++++ reaction. In a communication by one of us (J. V. K.),[13] it was shown that, in some cases of acute secondary syphilis in which there were no subjective or objective symptoms of a neuraxis involvement, the spinal fluid Wassermann test was positive only in the low dilutions of 1 c.c. or more; the spinal fluid otherwise was entirely negative. These observations suggest an infiltration of complement fixing antibodies from the blood into the spinal fluid.

It may be mentioned here that not uncommonly in neurosyphilis the Wassermann test, as well as other laboratory tests of the ventricular fluid, is entirely negative, whereas the fluid obtained by lumbar puncture is positive.[14]

It is interesting to note that the permeability of the choroid plexuses and the meninges for the virus of syphilis, the complement fixing antibodies and probably syphilitic immune bodies is distinct from the defense mechanism of the meningeal choroid complex. The truthfulness of this becomes apparent when we consider the infrequent incidence of meningitis in septicemias in general and the exceptional finding of drugs, bacteria immune bodies and other substances in the spinal fluid under normal and, indeed, abnormal conditions.

The uniform finding of the complement fixing antibody in all exudates and transudates points to the hematogenous origin of these substances. The permeability of serous membranes for the complement fixing antibodies is in striking contrast to the lack of permeability of secretory glands to these substances. It appears however, that within five days after childbirth complement fixing antibodies are more likely to be found in milk than during any other period. This can doubtless be attributed to the greater degree of vascularity of the mammary gland at this time which facilitates the filtrability of these substances.

THE "LOCAL" WASSERMANN REACTION

For purposes of studying the question of local formation of the complement fixing antibodies, we performed the test on the surface fluid from a number of chancres and on the saline extract of syphilitic nodules removed from syphilized rabbit's testicle. The test performed with chancre fluids yielded almost uniformly a ++++ reaction. In some instances positive results were obtained before the test appeared positive in the blood, which apparently excludes the possibility of the positive reaction in the chancre fluid being due to admixed blood. The complete results of this study will be later communicated in a separate report, and its practical value as an aid to the early diagnosis of syphilis will be pointed out. The reaction performed with saline extract of syphilitic testicular nodules yielded a positive result. The control reactions in both studies were negative.

In view of these observations, it appears that there is a formation of complement fixing antibodies at the site of syphilitic lesions and that the Wassermann test may be of value in the diagnosis of local syphilitic lesions when fluid from or in relation to this site is employed. The negative Wassermann test with saliva obtained from cases with buccal mucous patches does not negative the foregoing statement since positive Wassermann tests were obtained with the fluid obtained directly from the surface of the mucous patch.

During the acute stage of syphilis, there is, at least in some cases, an invasion with *Spirochaeta pallida* of the secretory organs and their secretions on which we performed the Wassermann test. Voss[15] observed several cases in which a wetnurse, who had no symptoms of syphilis at the time, nevertheless infected a healthy child. He therefore inoculated three volunteers with milk from the breast of a woman with secondary syphilis. One of the three persons thus inoculated developed syphilis. Uhlenhuth and Mulzer[16] inoculated the testicles of rabbits with milk from

12. Kolmer, J. A., and Sekiguchi, S.: J. Immunol. 3:101 (March) 1918.

13. Klauder, J. V.: Early Neurosyphilis Asymptomatic, with Report of Observations and Cases, Am. J. Syph. 3:539-586 (Oct.) 1919.

14. Solomon, H. C., and Klauder, J. V.: Provocative Reactions in the Cerebrospinal Fluid in Neurosyphilis, Arch. Dermat. & Syph. 2:679-691 (Dec.) 1920.

15. Voss: Ist die Syphilis durch Milch übertragbar? St. Petersburg. med. Wchnschr. 1:1, 1876.

16. Uhlenhuth and Mulzer: Weitere Mitteilungen ueber die Infectiosität des Blutes und anderer Körper flüssigkeiten syphilitischer Menschen für das Kaninchen, Berl. klin. Wchnschr. 1:769, 1913; Ueber die Infektiosität von Milch syphilitischen Frauen, Deutsch. med. Wchnschr. 39:879, 1913.

the breasts of eight syphilitic women. Two of the inoculated animals reacted positively. *Spirochaeta pallida* has likewise been demonstrated in seminal fluid,[17] spinal fluid [13] and urine [1] of syphilitics. We also know that this invasion occurs with or without a local reaction on the part of the invaded tissue. Warthin has shown in pathologic studies that the testicle in tertiary syphilitics is frequently the site of a pathologic involvement with syphilis.

From the point of view of our negative Wassermann tests performed with the various secretions, there is no local formation of complement fixing antibodies due to the foregoing invasion with *Spirochaeta pallida* and pathologic involvement, at least of the testicle, of these secretory organs.

Unfortunately, we had not the opportunity, while conducting this study, to perform the Wassermann test on these secretions during a time in which there was a gross or clinical syphilitic involvement of these secretory organs. Our observations concerning the local formation of complement fixing antibodies support the belief that the Wassermann test on the various secretions may be of value in differentiating a syphilitic from a nonsyphilitic pathologic condition of the secretory organs from which the secretion is obtained.

SUMMARY AND CONCLUSIONS

The Wassermann test was performed with milk, saliva, seminal fluid, exudates and transudates from syphilitics.

An antisheep hemolytic system, water bath incubation and a cholesterolized antigen were used in performing the test.

Wassermann tests with the heated serum of each patient were conducted with the same antigen and with the same technic. All yielded a positive reaction.

All specimens were first titrated for anticomplementary activity. Milk and saliva were found to be highly anticomplementary.

Nineteen specimens of milk were examined; positive Wassermann tests were obtained in three.

Twenty specimens of saliva were examined; a weakly positive Wassermann test was obtained in one.

Thirty specimens of seminal fluid were examined. A moderately positive Wassermann test was obtained in one.

Ten specimens of aqueous fluid from the anterior chamber of the eye were examined. All yielded a negative test excepting two in which the test was doubtful.

Eleven specimens of exudates and transudates were examined. All yielded a positive Wassermann test. The degree of positive Wassermann reaction closely paralleled the reaction obtained with blood from the same patient.

Evidence is presented which supports the belief that the complement fixing antibody in spinal fluid is in all probability dual in origin, neural as well as hematogenous.

The presence of the complement fixing antibodies in exudates and transudates from syphilitics is regarded as derived from the plasma of the blood.

The Wassermann test was performed with the surface fluid from a number of chancres, and with the saline extract of syphilitic nodules removed from the testicles of syphilized rabbits. All the tests performed with chancre fluids yielded almost uniformly ++++ reactions. The reaction performed with saline extract of syphilitic testicular nodules yielded positive results. The control reactions in both studies were negative.

These positive reactions support the belief that at the site of syphilitic lesions there may occur a local formation of complement fixing antibodies. The reaction in these circumstances is styled the "local" Wassermann test. The practical value of the "local" Wassermann test is pointed out as a possible aid in differentiating syphilitic from nonsyphilitic lesions, particularly when applied to chancre fluid as a means to the early diagnosis of syphilis.

17. Herman, L., and Klauder, J. V.: Studies of the Prenatal Transmission of Syphilis, I, Syphilis of the Testicle, Am. J. M. Sc. 159: 705-723 (May) 1920.

BASAL METABOLISM IN BORDERLINE CASES

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It can be safely said that there is no sign or symptom, or laboratory test, on which a certain diagnosis of hyperthyroidism can be based. In the marked case the signs and symptoms are usually clear cut, and the basal metabolism markedly increased. In the borderline cases the signs and symptoms are not clear cut, and the basal metabolism may not be markedly increased.

INCIDENCE OF VARIOUS SIGNS AND SYMPTOMS

		26 Cases of Hyperthyroidism, Percentage	42 Miscellaneous Cases, Percentage
Pulse over 90		88	25
Tremor		85	24
Nervousness		88	38
Sitruma		73	32
Moebius		23	19
Von Graefe		42	35
Loss of weight		77	43
Gain in weight		7.7	35
Palpitation		65	35
Digestive disturbances		73	83
Dyspnea		57	50
Choking		15	14
Perspiration		23	19
Menstrual disturbances		46	28
Exophthalmos		4	0
Pigmentation		8	5
Blood pressure:	Above 130	58	50
	Above 150	50	30
	Above 160	23	..
	Above 180	8	..
	Above 200	4	..
	110 or below	4	20
Pulse pressure:	Over 50	54	21
	Without hypertension, 14		
	Over 60	30	14
	Without hypertension, 7		
Basal metabolism:	Over 10 per cent.	73	36
	Over 15 per cent.	61	19
	Over 20 per cent.	50	9
	Over 25 per cent.	30	4
	Over 30 per cent.	30	2

The present study was undertaken with the object of comparing the clinical diagnosis with the basal metabolism. The cases, with but two or three exceptions, are borderline cases, i. e., cases in which the possibility of a hyperthyroidism had to be considered. The diagnosis in each case is based on the clinical findings independently of the basal metabolism reading. Each patient underwent at least a complete physical and routine laboratory examination and, when indicated, special examinations, such as mental, ophthalmoscopic, nose and throat, gastro-intestinal, roentgen-ray, and blood chemistry.

The sixty-eight cases are divided into two groups: Group 1 (twenty-six) consists of cases in which the diagnosis, based on the clinical findings, exclusive of the basal metabolism, was hyperthyroidism. Group 2

(forty-two) consists of cases with a rather wide variety of diagnoses, but diagnoses based on clinical findings, independent of the basal metabolism. Some of the diagnoses in this group were: neurosis, paroxysmal tachycardia with goiter, chronic endocarditis, arteriosclerosis, visceroptosis, cholecystitis, no disease, myxedema, diabetes, infected tonsils, mucous colitis, chronic nephritis and simple goiter. The table gives a summary in percentages of the incidence of the various signs and symptoms.

Rather interesting comparisons are brought out in studying the blood pressure. The figures seem to show that it is rare to have a blood pressure below 110 mm. in hyperthyroidism; that a pulse pressure over 50 mm. favors the presence of a hyperthyroidism, while a pulse pressure below 50 mm., if hypertension is excluded, favors the absence of hyperthyroidism.

RESULTS OF OBSERVATIONS

An increase in the basal metabolism of 10 per cent. is present in two thirds of the cases presenting clinical signs and symptoms of mild hyperthyroidism. An increase in the basal metabolism of 10 per cent is present in one fourth of the cases in which the clinical signs and symptoms were not considered sufficient to warrant a diagnosis of hyperthyroidism as being the prime factor in the diseased condition.

As the basal metabolism rose, the percentage of cases clinically falling into the hyperthyroidism groups increased rapidly.

RELATION OF INCREASED BLOOD VISCOSITY TO TRANSIENT ATTACKS OF HEMIPLEGIA *

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The occurrence of attacks of hemiplegia or aphasia which clear up completely within a few hours is an extremely interesting phenomenon. It is seen not infrequently in individuals suffering from arteriosclerosis, with or without abnormal blood pressure changes. The term transient hemiplegia, as here used, refers to a condition resulting from a disturbance in the circulation of the blood, in one or more of the cerebral vessels, which is not of sufficient duration to result in permanent damage. This condition must be carefully distinguished from the transient hemiplegias that are not uncommon in general paralysis of the insane, and from hemiplegias that leave a residue of symptoms indicating permanent organic injury of the brain.

There has been considerable speculation as to the nature of the circulatory disturbance which could be so severe as to result in a complete loss of function of one or more parts of the brain, and which is yet so fleeting as to permit perfect restoration of function within a few hours. Many authors believe that the circulatory disturbance is the result of arterial spasm, and see in the pathologic process a condition analogous to the spasm of the peripheral vessels supposedly present in intermittent limp, Raynaud's disease, etc. This view has been well summarized by Russell,[1] who writes: "In this condition the closing of the blood channels is initiated by the channels themselves, and is effected by means of their muscular coat. It is a local closing and may be partial or total—that is to say, it may only lessen the amount of blood passing, or it may completely arrest the flow of blood to the part." The terms angiospastic hemiplegia and intermittent cerebral claudication have been used, therefore, to describe the attacks. Oppenheim [2] states that "the term transient hemiplegia is used when softening does not result—either because the clot dissolves or is washed away, because collateral circulation is established, or because (as in syphilis) the defective blood supply was the result only of great narrowing of the vessel-lumen, which for the time being amounted to occlusion."

Inman [3] takes issue with the adherents of the vessel-spasm theory, and says: "In the first place, the theory rests on a foundation of conjecture only. There is little evidence, either of a pathologic or of an experimental nature, to support the belief that isolated spasm of the cerebral vessels may occur as a result of conditions arising in the body." He offers as a more satisfactory explanation of some cases of transient paralyses the view that they are due to slowing of the circulation in sclerotic vessels as a result of lowered blood pressure.

So far as I am aware, there is no absolutely certain clinical or experimental method by which the vessel spasm theory of transient cerebral palsies can either be proved or be disproved. The influence of blood pressure changes can be investigated more easily. The theories mentioned leave out of consideration, however, the influence of changes in the physical character of the blood. It is not my object in this paper either to prove or disprove the truth or falsity of the theories mentioned, but to invite attention to the probability that changes in the physical character of the blood may be equally at fault with diseased vessels and changes in pressure.

INFLUENCE OF THE VISCOSITY OF A FLUID ON ITS RATE OF FLOW

From a purely theoretical standpoint, it is apparent that at a constant temperature, the resistance offered to the flow of a fluid through a tube will depend, not only on the size, shape and smoothness of the tube lumen, but also on the character of the fluid. Because of friction, that part of the fluid in contact with the walls of the tube is slowed, so that the center of the fluid moves with greater velocity than the periphery. Angulation, constriction or roughness of the lumen will result in increased friction and a consequent slowing of the stream. All other factors remaining constant, an increase in the viscosity of the fluid will produce a similar effect. By viscosity is meant that quality of a fluid which tends to cause the molecules composing it to remain in contact. It has nothing to do with specific gravity, since a liquid such as mercury may have a very high specific gravity and yet flow freely because of a low viscosity, while glycerin, which has a relatively low specific gravity, has a high viscosity. The volume of fluid discharged from a tube in a unit of time will depend upon the resistance offered by the tube, the viscosity of the fluid, the temperature, and the pressure exerted by the driving force.

VISCOSITY OF BLOOD

Blood has a viscosity four or five times that of water, and for that reason the energy required to circulate it

* From the Department of Medicine, Northwestern University Medical School.

1. Russell, William: Intermittent Closing of Cerebral Arteries, Brit. M. J. 2:1109 (Oct. 16) 1909.

2. Oppenheim, H.: Text Book of Nervous Diseases (English Translation) 2:819, 1911.

3. Inman, T. G.: Cerebral Thrombosis and Abrupt Slowing of the Cerebral Circulation, J. A. M. A. 75:1765 (Dec. 25) 1920.

is much greater than would be required to circulate an equal volume of water. The viscosity of blood is subject to fluctuation due to changes in salt, colloidal, gaseous and water content, and the corpuscular concentration. An increase in the number of cells, of the colloids in suspension, or of carbon dioxid causes an increase in viscosity. Increases in the water, oxygen or salt content lower viscosity. In individuals with normal vessels and adequate pressure, it is highly improbable that the viscosity of the blood is ever altered sufficiently to result in the production of symptoms. Bock,[4] in an article on plasma volume, advances the general proposition that, with certain exceptions, among which are edema of the lungs, excessive sweating and diarrhea of severe type, plasma volume tends to remain fairly constant. He emphasizes the necessity of a normal tissue fluid reserve for the maintenance of blood plasma volume at a physiologic level.

The degree of dehydration which may result from severe diarrhea, vomiting, cholera, etc., may become so extreme as to constitute an urgent indication for the subcutaneous or intravenous introduction of fluid in order to restore blood volume and decrease blood viscosity. Apparently, severe sweating, occurring under conditions which preclude the possibility of replacing the water lost, may also result in a sufficient concentration of the blood to produce symptoms. Allbutt [5] says: "Sweating, it is agreed, raises viscosity by about 1.25." If it does, and reason, clinical and experimental evidence seem to corroborate the truth of his statement, the increase is from 25 to 30 per cent. above normal values. Such an increase cannot be ignored in considering the dynamics of the cerebral circulation, especially if it occurs in an individual suffering from either relative or actual hypotension, or vascular disease or both.

The foregoing is sufficient to indicate that, in considering the cause of transient attacks of paralysis due to slowing or stoppage of the circulation in a cerebral vessel, factors other than decreased head of pressure and narrowing of the vessel lumen may play a part. Such a supposition was suggested by the history and physical examination of a patient seen recently:

N. E. B., a white man, aged 78, actively engaged in business, with the exception of a single attack of gout which occurred a few months prior to his present illness, had always been in excellent health. Physical examination at that time was for the most part negative. He had a moderately low systolic pressure, a faint trace of albumin in the urine, and the findings characteristic of acute gout. His present illness consisted of two complete but transient attacks of left sided hemiplegia separated by an interval of about two weeks. Both attacks occurred during the early morning hours; both followed baths which were so hot that he says the water nearly scalded him. On both occasions he awoke because of a severe left hemicranial pain. He attempted to arise, only to discover that the left side of the body was completely paralyzed. Summoning help, he insisted on being aided to sit upright in bed. Twelve hours later the paralysis had almost completely disappeared, and within forty-eight hours the only evidence which remained was a feeling of numbness of the left side of the body. Examination forty-eight hours after the second attack revealed all reflexes present, equal and normal. There was no impairment of muscular power of the left side of the body as compared with the right. Sensation was normal. Cranial nerves were normal. There was normal plantar flexion. He insisted that he felt perfectly all right and chafed under the restraints imposed on him by his family. Cardiovascular examination was negative. The vessels were not palpably sclerotic. The systolic blood pressure was 140; the diastolic, 80.

The patient on two occasions had taken very hot baths during the early evening hours; six or seven hours later, in the early morning hours when the cardiac rate, blood pressure, and respiratory rate were presumably at their lowest ebb, he suffered from cephalic pain and hemiplegia. If the baths played a part in the pathogenesis of the condition, it would seem that they did not do so by reason of sudden changes either in blood pressure or in blood distribution, since there had been no untoward symptoms during or immediately after the baths. Even if the baths had resulted in a marked change in blood pressure, the time which elapsed before the onset of the paralysis should have been ample to permit readjustment. It was surmised, therefore, that the effect of the hot baths must have been of such a nature as to result in increased blood viscosity through loss of water by perspiration. As indicated in a previous paragraph, increased viscosity would result in increased resistance to the flow of blood through the capillaries. Given, then, sclerotic vessels, lowered blood pressure and increased blood viscosity, all the factors necessary for the slowing of the cerebral circulation were present. That in this case they did not result in permanent damage was probably due to the fact that the exertion consequent to assuming the sitting position resulted in an accelerated cardiac rate and higher blood pressure, thus reestablishing the circulation before coagulation of the stagnant blood could occur.

The history of the foregoing case is almost duplicated by that of another man in the fifth decade of life who has had two attacks of transient aphasia following sweating brought on by unusual muscular exertion. Here, also, physical examination is for the most part negative, with the exception that he is slightly overweight and has a permanent hypotension.

Other cases might be cited in which the effect of dehydration is not apparent, but the connection in the two cases aforementioned is reasonably clear. Because of difficulty on urination as the result of prostatic disease, or because of the inconvenience of frequent nocturnal urination, many elderly men restrict their fluid intake, a procedure against which they should be warned, especially if they also suffer from hypotension or vascular disease. In view of the fact that the transient cerebral palsies have been regarded as analogous to intermittent limp (thrombo-angiitis obliterans) it is significant that the treatment of the latter condition was most unsatisfactory so long as it was considered as being purely a vascular disease, and continued so until efforts were directed toward improvement of the abnormal blood viscosity known to exist in this condition. Since the introduction of the Mayeshima-Koga method of treatment of this condition, consisting of the subcutaneous injection of large amounts of Ringer's solution, the therapeutic results obtained have been most gratifying. Modifications of the original method, such as the intravenous injection of 2 per cent. sodium citrate, or the introduction of Ringer's solution into the stomach through a Rehfuss tube, have also given good results.

CONCLUSIONS

In the care of patients of advanced years, or those known to have vascular disease, and in those who have had cerebral vascular crises, dehydration of the tissues should be avoided.

4. Bock, A. V.: The Constancy of the Volume of the Blood Plasma, Arch. Int. Med. 27:83 (Jan. 15) 1921.
5. Allbutt, Clifford: The Viscosity of the Blood, Quar. J. Med. 4:342, 1910-11

The introduction of anticoagulant salts and of fluid may be indicated in certain cases of transient hemiplegia or aphasia in order to prevent actual thrombosis in vessels when slowing of the circulation is the cause of the symptoms.

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TRAUMATIC SURGERY PROBLEMS *

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The big problems in accident surgery are the prevention and cure of infection of the soft parts, the management of fractures and of injuries to joints, tendons and nerves, and the after-care of the injured. Of these, the management of infected wounds and the care of broken bones are the most important, because 75 per cent. of our patients have wounds of the soft parts or broken bones. It is important to remember that these were the problems of war also, and some of the great surgical lessons of our recent military experience are applicable to these, our postwar civil traumapathies.

However, we must recall that military surgery did not radically change our previous knowledge, and it is a regret, and something of a reproach also, that out of the war has arisen no universally accepted treatment for infected wounds or fractures, despite the fact that the attention of surgeons the world over was focused essentially on these two problems. The French military surgeons brought forward the best preventive method of wound treatment by stressing mechanical sterilization, the exsection of damaged tissues (called by them débridement); but at the close of the war it remained for a Frenchman (Louvard) to show that this supposedly new method had been advised and practiced in all its essentials during the Napoleonic wars by that great French surgeon, the Baron Larret. In my opinion, the one applicable gain of military experience to civil experience is the recognition that crippling from injury is preventable by early care and that deformity can be minimized by later care of the injured. Fortunately, this gain is in terms of restoration of function, for the two great basic factors in traumatic surgery are, first, safety, and, second, conservation, as related to life, limb and vital organs.

In a quantitative and qualitative sense, the war presented maximum opportunities for the practice of traumatic surgery, and, beginning in 1917, the combined experience of the best surgeons among our allies became available through the meetings of the Interallied Surgical Conference, which made an intensive study of common problems, agreed upon the best methods of treating them, and, from then on, standardization and unification of procedure became possible. In due time, our own surgeons joined this group, and out of this clearing house of information came the precepts and practices which guided us in the treatment of our own soldiers and those of our allies.

At the meeting of the American College of Surgeons in 1919 in New York, I proposed a similar conference for the purpose of standardizing the methods of treatment of present-day injuries. This proposal is being considered.

* Read before the Buffalo Academy of Medicine, April 6, 1921.

There assuredly is one best way of treating the average wound, the average burn, the average fracture, the average joint injury; and, until we standardize our methods by agreement among those best fitted by clinical experience to express an opinion, our therapy will be shifting, aimless, and ineffective.

Standardization of treatment is then the next basic problem I would mention, and, with that in view, I venture to state what to me are some of the elements leading to earlier return of function after injury.

ELEMENTS LEADING TO EARLIER RETURN OF FUNCTION AFTER INJURY

Wounds.—Sterilization is the key to success, and we have only two methods to accomplish this, namely, mechanical sterilization and chemical sterilization. The first of these means that we sparingly cut away all bruised, frayed or otherwise devitalized tissue, realizing that germs propagate only in tissues robbed of normal blood supply, and that healthy tissue is inimical to their growth. This sort of treatment is needed only in crushing wounds of the soft parts and in grossly compounded fractures, and we practice it only when we can see the patient within the first twenty-four hours after injury. This débridement of wounds is not sacrificial to the tissues, and only enough soft parts are removed to encounter free bleeding, normal color, or contractile muscle.

For the ordinary wound, chemical sterilization suffices if we can make our antiseptic contact with every part of the dried wound. Hence the uniform procedure is to cleanse the surface with gasoline, benzin, or kerosene, remove all débris or foreign bodies, and then bathe the parts very freely with tincture of iodin full strength. In a wound with a small or tortuous orifice, the iodin should be introduced by a syringe so that we may be assured that all the wound tract is iodized.

Next to iodin sterilization, the most important point is *drainage*. Every wound not made under surgical auspices is already infected and should be so regarded; therefore, it should be suitably drained, after being loosely sutured. Gauze drainage soon plugs and dams the orifice; therefore rubber drainage (such as by an ordinary rubber band) is best. Personally, I use gauze drainage only for two reasons; to keep the wound edges apart, or to act as a hemostatic agent. The first dressing placed on the now sterilized, loosely sutured and rubber drained wound, consists of gauze wet in some nonirritating solution to combat infection from the skin cocci present on the surface of every wound. One dram of full-strength tincture of iodin to a pint of saline makes an excellent solution for this purpose.

Rest and elevation are the final measures, and for this purpose a light splint is very useful, aiming by posture to anticipate a possible deformity. Drainage is removed at the end of from twenty-four to forty-eight hours, if conditions warrant. However, there are some wounds, deep, tortuous, perhaps associated with much tearing of muscle, perhaps even involving the bone. To suture these is but to lock up infection, to keep it at the depth of the wound despite adequate drainage. In these it is the part of wisdom to sterilize the wound mechanically or chemically, to place the stitches but not to tie them for from twenty-four to seventy-two hours, until we are sure clinically or bacteriologically that streptococci are absent. Such a procedure in war surgery went by the name of inter-

mediate or primosecondary suture, as compared with the immediate or primary suture method just described. The final form of wound closure is the so-called secondary or late suture. This we adopt for infected wounds, which we make clean by some form of chemical sterilization, some favorite antiseptic. This practice of undermining the margins of a clean, granulating surface, bringing the skin edges together, suturing and draining, is a big help in our effort to shorten disability and diminish deformity.

Burns.—If we will modify our conception of burns and regard them as infected wounds due to heat, our therapy will then also become modified, our results will be better. We will not voluntarily reinfect an ordinary wound by applying a rancid, oily or greasy dressing, such as stale carron oil or a non-antiseptic ointment; nor will we cover an ordinary wound with a paraffin dressing that in effect seals it like collodion. If we decline to do this for an *ordinary* wound, why should we do it for a heat wound, or burn?

The treatment for burns that has given me the best results is one that regards all burns as heat wounds, that pass through three stages in their development. The first stage is that of dermatitis (which is allied to superficial cellulitis); the second stage is that of exudation (which is allied to suppuration); the third stage is that of cicatrization (which is allied to the formation of scar tissue). For the initial stage, my plan is to sterilize the burned area by painting it with a 3.5 per cent. watery solution of iodin, unless the involved area is very large or the patient is in shock. Thereafter the surface is covered by a gauze dressing wet in 10 per cent. sodium bicarbonate, and this dressing is kept wet by rubber tubing incorporated in the dressing so that the original dressing is unchanged for from twenty-four to forty-eight hours, depending on the extent and depth of the burn. Why do we use sodium bicarbonate? Burns produce their systematic effect, their toxicity, their shock, because they are manifestations of an acidosis, and hence sodium bicarbonate is a physiologic antidote and is also productive of an excessive secretion of the serum so necessary to prevent infection and promote healing. Organized serous effusion is to an injury of the soft parts what callus is to an injury of the hard parts. Part of the toxicity and shock from burns is also due to dehydration and to absorption of destroyed tissue, just as shock is similarly produced by absorption of destroyed tissue, in excessive destruction of muscle and other soft parts in severe crushes and allied wounds. A third cause of toxicity and shock in burns is due to the suprarenal disturbance which focalizes in the suprarenal tissue of the duodenum, giving rise to the gastroduodenitis which sometimes complicates burns. All these elements are in part counterbalanced by the use of sodium bicarbonate externally, and by the use of the same drug by rectum or intravenously in cases of profound shock. The second stage of burns, that of exudation, is treated by exposure of the burned area to sunlight or open air, the parts being so arranged that contractures will not occur. In the absence of sunlight, exposure is made to the rays from an ordinary electric light bulb covered by red or yellow paper. No dressing of any sort is placed over the wound, and all secretion from it is gently washed or sponged away by a 5 per cent. solution of sodium bicarbonate. If the burned area is large, especially in children, a daily bath in the bicarbonate solution is excellent. At night, it may be necessary to cover the surface, and the dressing then consists of camphorated oil, sterile olive oil, or a 10 per cent. solution of castile soap and petrolatum in sterile water. If crusts form, they are allowed to crack and separate spontaneously, the process being hastened by double strength sodium bicarbonate The third stage, that of cicatrization, is treated by similar exposure to sunlight, or the red or amber rays from an ordinary electric light bulb. This form of exposure is the best form of treatment for an infected wound of any type, notably when a sinus exists, or there is excessive purulent discharge. The comfort to the patient is remarkable because no dressings are required; sepsis is minimized because the pus is not kept in contact with dressings, which virtually act as pus poultices; and the cicatrix is smooth, soft and nonadherent. Even with very large and deep burns, this treatment is so successful that skin grafting is far less often necessary. It is applicable to a burn of any extent, of any origin and of any location. Even in ambulatory cases, a caging of chicken wire can be placed over the burned area so that the secretions can flow out, and not be kept in by a dressing that soon becomes pus saturated, to act as a reinoculating agency. In passing, I may say that most of these wounds, especially those on the face, trunk and abdomen, would do much better without any dressing whatsover, because the normal serous flow effectively prevents reinfection.

Joint Injuries.—One of the great advances during the war was the recognition that mobilization and not immobilization was the best treatment for articular lesions. This means that early activity of the joint and not inactivity best promotes return of function, irrespective of the grade of joint damage.

Sprains.—These should receive the benefit of immediate hot applications during the first few hours, and then the affected joint should be massaged and wrapped in adhesive in such a way that circulation and joint motion will not be impaired. Thereafter, the joint should be moved *by the patient* every two hours through a full range of motion, massage being given daily over the adhesive. In sprained ankles and knees, walking should be insisted on after the first massage period. It is *active* motion, not *passive* motion, which promotes circulation, prevents organization of exudate, limits atrophy, shortens disability and restores the maximum of function.

Synovitis.—This can be cut short if the effused fluid is promptly aspirated and the joint actively moved every two hours. Reeffusion after the first twenty-four to forty-eight hours is treated by reaspiration, and rarely will more than two aspirations become necessary. Synovitis of the knee is a troublesome affair if treated by the usual method of pressure and splintage, even if we add the benefits of massage. If, however, we empty the joint of the serosanguineous exudate, we prevent stretching of the joint capsule and the surrounding ligaments, we limit the possibilities of intra-articular adhesions, and we go a long distance in restoring more perfect function, which of itself safeguards the joint from that form of recurrence with which we are all familiar. A safe and simple method of aspirating the knee is to paint the outer part of the joint with iodin. Then the patella is pushed as far outward as it will go, so that it forms a sharp-edged surface like the eaves of a roof. Then an aspirating needle, with a caliber equal to that of

the lead in a pencil is pushed into the joint just under the upper part of the overhanging patella, which now makes an excellent guide to the joint interior. The joint should be entirely emptied, and to do this it may be necessary to bend and straighten it several times, so that all the fluid may be made to gravitate toward the needle. Ethyl chlorid or some local anesthesia may be used if desired, and when the puncture is being made, the joint should be as nearly straight as possible. In recurrent or chronic synovitis, it is an excellent plan to inject ether into the joint after all the fluid has been evacuated, using about 10 c.c. of ether to every 50 c.c. of fluid removed. This stimulates the interior of the joint to such an extent that pain and reeffusion occur (as in a hydrocele), but this soon subsides.

Dislocations.—Here again we must get away from our former idea that immobilization is a necessary part of the treatment. What is a dislocation but a wound of the capsule of a joint made by the articular end of the bone? Certainly it is not rational to treat that wound by locking up the entire joint for weeks and often for months. Every dislocation has as associates arthritis, synovitis, bursitis, and a ligamentous wound or sprain. When we put the bone back into the socket, we are no longer treating the dislocation, but only these associated lesions. The therapy then is one of active mobilization, not passive immobilization. As applied to the shoulder, we reduce the dislocation, we massage the joint, we apply a hot wet dressing, we support the forearm in an ordinary sling and have the patient move the arm forward and backward every two hours. After the first few days we have the patient pronate and supinate with the arm at the side, and on the fifth day we teach the patient to abduct the arm by making the hand climb the wall with the body tilted toward the wall. Daily massage helps much in this activation for we realize that the deltoid muscle very promptly atrophies, as do all broad, flat muscles, unless we prevent this by usage. There is a triple reason for this, because we have a combination of pressure from within, disuse and unantagonized action. In all these joint injuries, it is especially important to move the parts every two hours through at least two full joint excursions during the first two days, because this is the period in which joint effusion, muscle spasm and joint reaction are most amenable to treatment. In this connection, let me warn against forcibly attempting to "break up adhesions" in old joint cases. That is a bad practice and, if done at all, an anesthetic should be used. When the adhesions are felt to give, stop and immediately begin the procedure of maintaining and increasing this gain by voluntary motion by the patient every two hours.

Fractures.—A broken bone is a wound of bone, and this wound like those of the soft parts may be clean cut, irregular, or gaping. The analogy is the more helpful when we realize that clean cut wounds of the soft parts heal by primary union with a minimum of cicatrix, just as do wounds of the hard parts (or bone) when they heal by a minimum of callus. A suture of a wound of the soft parts is a means of keeping the edges together after we have coapted them; a splint is the same thing for a wound of the hard parts. We take out sutures when the wound no longer needs this form of extrinsic support; likewise we should remove splints when and for the same reason. We know that a suture in the soft parts has no power to coapt edges unless we have first brought them into more or less perfect apposition. Let us remember also that a splint (virtually the external suture used in fractures) is not a means of coapting broken bone fragments but that it acts only as a supporting medium during the process of healing. This fact is all too often forgotten, and it is important for all of us to recall that no splint, however elaborate or ornate, is of itself capable of doing more than holding a broken bone in the position in which we place it. A splint is a medium of retention, not a method of reduction; a splint holds, but does not set, a fracture.

There are from a clinical standpoint only two types of fractures, either of which may be simple or compound: Type I is the displaced, the malalined, the overlapping fragments. Type II is the nondisplaced, the alined, the coapted sort. Type I is the typical form that presents considerable deformity because the fragments are separated. Type II is the atypical form that shows little if any deformity because the fragments are little, if at all, separated.

The importance of this typing of fractures is in terms of treatment, because Type I requires reduction and retention, but Type II requires retention only. In other words, when we have brought together malalined bony fragments, we have made that fracture fall into the Type II class. In compound fractures of a selected type, we seek by sterilization and suture to convert them into simple fractures.

Every broken bone is associated with lesions of the surrounding parts, notably myotenosynovitis, hemorrhage, vascular and neural damage; and in fractures in or near joints there is also synovitis, bursitis, or arthritis. It is important for us to recognize this associated pathology and to realize that when we have set the bone our efforts should be directed toward these soft part lesions. Having in mind this conception of fractures, and recalling the analogy between broken skin and broken bones, we can say that in the treatment of fractures there are four R's, namely, recognition, reduction, retention and reeducation. Of these, reduction and reeducation are the most important. By *recognition* we mean differential diagnosis, and, by applying the universal rule of the law of averages, experience teaches us that about 80 per cent. of deforming and disabling joint injuries are fractures and not dislocations. The only main joint in the body to be excluded in this grouping is the shoulder, where dislocation is so common. Ninety-nine per cent. of so-called dislocations of the hip prove to be fractures of the neck of the femur. About 85 per cent. of the so-called dislocations of the wrist and ankle prove to be, respectively, Colles' or Pott's fractures.

Reduction.—This should be made at once, and in all Pott's and in most Colles' fractures, general anesthesia should be more often employed. Let me warn against the use of chloroform in any traumatic case, for it is as dangerous in these as it is safe in obstetric cases. Nitrous oxid is safest; ether by the drop method, next; ethyl chlorid on a mask, third. Provisional traction with suspended weights on the limb is a great aid if for any reason immediate reduction cannot be made. Let us recognize once for all that unless we can attain at least physiologic readjustment of fragments, our subsequent efforts will be to a large extent unsuccessful. This means that reduction or setting is the most important phase in treatment, and that we "set" the bone only by "setting" the muscles which are affected and which maintain the displacement. This

muscular element is at first a manifestation of spasm, then contraction, then scar tissue shortening, so that the longer we wait the harder it is to overcome and the more futile our attempts to correct bony displacement by any quick or sudden efforts. Hence the rationale and value of traction by weights in early or late cases.

Retention.—This is the third element, and, as already stated, a splint is a form of external suture applied to keep displaced bones in the replaced position in which we have put them. A splint should first of all, be safe, and last of all it should be simple. Beware of complicated splints; beware also of splints which hide the parts so that they can neither be seen nor massaged. The ideal splint is of the removable type, so that it can be made to fit the patient immediately, and can be used up to the time the patient is cured. The splint should fit the patient; not the patient the splint. Hence the "nests" of splints usually sold to us should be put in the forge before they are put on the patient. Molded plaster-of-Paris two-piece splints are the best for permanent fixation. They are safe because they have two channels for circulation; they are custom made and fit that patient alone; they are removable for inspection, massage and motion; they can be used from start to finish. Thomas splints for the extremities, especially the leg and thigh, are the best for transport, for many compound and for some simple fractures. For use on the ambulance or for first-aid purposes, there is nothing better, and their adoption in civil life would prove as valuable as was their universal use during the war.

Circular plaster-of-Paris casts should be much less often used, especially in the early part of treatment. They often act as tourniquets, they immobilize, cause atrophy, and prevent that grade of frequent inspection, massage and motion now properly deemed of such importance. Fracture of the neck of the femur is practically the only indication for their early use, and their later use should be limited to that class of case in which adequate supervision is for a variety of reasons impossible.

Let us not forget that we should always make sure of our reduction by resort to roentgenograms taken in two axes, and that when possible we should have another series of roentgenograms within two weeks, or earlier if there are special indications. We must not wait for a roentgen-ray examination in an obvious case before making attempts at setting, and if there is only one chance of getting a roentgenogram, use it for the purpose of checking up reduction rather than for checking up the diagnosis. The fluoroscope has a limited field and is not wholly unattended with danger to the patient or the user. It will not uniformly show nondisplaced fractures and is most useful in the reduction of certain fractures of the shaft of the forearm or leg.

Reeducation.—This is the fourth and last element in treatment, and next to reduction, the most important, for virtually this part of our therapy has much to do with the end-result. The estimation of end-results varies in fractures as it does in all other things surgical, but for purposes of checking up my own cases I have adopted an arbitrary standard based on the three elements of function, union and contour. Of these, function is most important, and accordingly this is allotted 60 per cent., union and contour being given 20 per cent. each. If in a given case, say a fracture of the femur, function is perfect as to gait and joint action, we allow ourselves 60 per cent.; if, however, there is a limp, or the joints are stiff, we reduce this allowance to, say, 30 per cent. If the union is solid, if the callus is rounded, nonadherent and painless, we allow a full 20 per cent.; if not, we may allow only 10 per cent. If the contour is straight, if there is no angulation, bowing, shortening, atrophy or trophic effects, we allow the full 20 per cent.; if not we allot 10 per cent. or less. A perfect result would thus give us 60 per cent. for function, 20 per cent. for union, 20 per cent. for contour, or 100 per cent. end-result. In the other instance, our arbitrary allowance would be the sum of 30 plus 10 plus 10, or 50 per cent. This plan can be used in any traumatic case. It is based on the idea that function is the essential aim of treatment, and hence has an arbitrary value, at least three times that of any other factor.

Reeducation, then, means rehabilitation, refunctioning, reconstruction, restoring the part to normal; and this essential of our treatment does not begin after the fracture has united, but on the contrary keeps pace with and promotes union. Hence our first effort is to so splint the fracture that access to the parts may be had for massage and motion. In every joint fracture we remove half the splint and begin massage the day after reduction. We continue this daily, replacing the splintage after each massage. For example, with Colles' fracture, we begin passive motion on the third day and permit active to and fro wrist motion from the fifth to the seventh day, removing the anterior splint in from seven to ten days and the posterior splint in from ten to fourteen days. Under this form of treatment, there is no adhesive tenosynovitis, no arthritis, no atrophy; and at the end of from three to four weeks that joint is ready for reasonable use instead of being ready to be removed from splints, as under the older form of treatment. In other words, we begin reeducation early and not late. In Pott's fracture, virtually the downstairs form of Colles' fracture, the procedure is exactly the same. In a recent compound Pott's fracture in which I removed two displaced fragments of the internal malleolus lying free in the joint, active motion through 15 degrees was possible on the tenth day, when the sutures were removed. This patient was operated upon within a few hours after the injury, and the fracture was converted from the compound into the simple form by mechanical sterilization and suture, using the hands-off ultra aseptic technic.

In joint fractures (neck of the femur excepted) there is practically no such thing as nonunion, but, on the contrary, union is so rapid that deformation will occur unless we keep the articular surfaces apart by functioning them. In no joints is this more probable than the elbow, wrist and ankle.

Massage and motion in fractures, and in joint and soft part injuries should then be part of our regular therapy, and if these are employed early there will be less need for the other useful physiotherapeutic aids, such as dry or moist heat, electricity or arthromotive apparatus. The last are especially valuable when stiffness and disuse have produced dysfunction, and no case should be submitted to operation without careful study, until these methods have been tried out.

As to operations in fractures, my belief is that plating, wiring, or other forms of metallic implantations are very rarely needed, and when such operations

are performed the surgeon should be familiar with that type of work and should carefully select his case.

There is a class of fracture, however, in which the ordinary nonoperative methods will not accomplish satisfactory reduction, and to these I apply the general term "the irreducibles." In these, I place overlapping fractures of the radius and ulna, certain fractures of the os calcis, and tibia, and all fractures of the femur (neck excepted) in which there is overlapping of an inch or more, in which the musculature is thick, or in which more than a week has elapsed. In the forearm cases, I cut down and interlock the fragments, with or without suture, by kangaroo or chromic tendon. In the os calcis, open correction and forced locking of fragments is attempted, for this is a form of fracture that causes much disability unless early correction is possible. In the tibia (especially the lower third) I use the traction obtained by the Finiochietto stirrup passed over the top of the os calcis, or the tongs applied to the malleoli, or the Steinmann nail passed through the os calcis. For the femur cases named, my preference is for the nail transfixion method, or the tongs. The nail, the tongs and the stirrup are the so-called *skeletal traction* methods, and their use has made it unnecessary in my practice to introduce plates, wire or other nonabsorbable materials. They have the great advantage of being introduced at a distance from the fracture site, no splintage is required, the entire limb can be readily inspected and massaged, and joint function can be encouraged from the onset. Finally, their introduction and removal are very simple, and the patient need not be in the hospital if for any reason home treatment is demanded. For the aged or for those of poor physique, the allowable activity in bed under this treatment is a distinct advantage. I am quite certain that nonunion is less common with skeletal traction then with other forms of treatment in which absolute immobilization is featured.

Compound Fractures.—Many of these should be subjected to mechanical sterilization (débridement), so that by suture they may be converted into simple fractures at once. Joint fractures are especially amenable to this treatment, but it should not be attempted in any case after the lapse of thirty-six hours, and very rarely should it be practiced in areas where the muscles are thick, as in the thigh and upper part of the leg.

The rule in compound fractures should be to regard the wound as the most important consideration for the first three days, not neglecting, however, during that interval, to avail ourselves of the advantages of provisional traction, as by a Thomas splint, or by hanging a weight to the broken limb, to prevent muscular contraction and inevitable increase of deformity.

In compound fractures with simple punctured wounds, it is usually sufficient to sterilize the tract by injecting into it tincture of iodin and covering it with a wet antiseptic dressing.

SUMMARY

The basic factors in traumatic surgery relate primarily to the treatment of infected wounds, burns, fractures, and joint injuries.

Safety first, conservation next, are the two essential considerations.

Sterilization of wounds by mechanical or chemical means is the end in view, and after sterilization, suture should be attempted.

Burns are, from a clinical standpoint, wounds due to heat and should be placed in the wound class, as thereby our patients will measurably profit.

Fractures are wounds of bones, and are always associated with lesions of the contiguous parts. Splintage should be of the removable type to permit inspection, massage and motion.

Early mobilization of joint injuries means earlier local repair, earlier return of function.

Physiotherapy begins early and should not be looked upon as applicable only to the final stages of treatment.

Functional return is the greatest aim in all forms of injury, and no patient should be regarded as cured until function has been restored to the maximum.

Traumatic surgery is not trivial surgery; on the contrary, it often demands a higher grade of surgical skill and experience than the average form of general or pathologic surgery.

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THE EFFECT OF PROHIBITION ON THE INCIDENCE OF PORTAL CIRRHOSIS

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There is considerable difference of opinion among physicians as to the etiologic rôle of alcohol in portal cirrhosis. There is considerable literature, both clinical and experimental, on this subject, and quite complete bibliographies may be found by referring to the articles of Klopstock [1] and Fischler.[2] That the clinical picture and pathologic findings of portal cirrhosis can be produced by other agencies than alcohol is generally admitted. Among these agencies may be mentioned syphilis and malaria. Consumption of large amounts of highly spiced foods has been considered a possible factor. Cirrhosis occurs among high caste Hindus who are total abstainers but eat large amounts of ginger. Budd's "digestive cirrhosis," found among Egyptians who abstain from alcohol, has been ascribed to their highly spiced food. Segan reports liver cirrhosis in the Fuegians, which he ascribes to the use in their diet of mussels, which contain myrtilotoxin.

The deposit of small foreign particles in the liver is considered responsible for the cirrhosis anthracotica described by Welch, and the cirrhosis of copper smelters mentioned by Lancereaux. Libermeister and others have reported changes in the liver resembling early cirrhosis in chronic sepsis.

Experimentally, apparently any agent which will destroy the liver cell, as alcohol, chloroform and phosphorus, will produce changes similar in character to that observed in portal cirrhosis in man. Bacterial toxins, whether used alone or especially in combination with any of these agents, may bring about definite changes in the liver. Only relatively few of the animals so treated show the characteristic changes, and it is certainly true in man that only a very small percentage of alcoholics ever develop cirrhotic changes in the liver.

The question at issue is, How frequently is cirrhosis in man due to the use of alcohol? The literature on

1. Klopstock, F.: Zur Lehre von der Lebercirrhose, Berl. klin. Wchnschr. 47:1574, 1910.
2. Fischler, F.: Die Entstehung der Lebercirrhose nach experimentellen und klinischen Gesichtspunkten, Ergebnisse der Inneren Medizin und Kinderheilkunde 3:240, 1909.

this subject is largely of German origin, and rather than considering it from the standpoint of alcohol in moderation as being a possible cause, they have discussed it from the point of view of high grade alcoholism. In studying this literature there cannot be found any definite evidence that when portal cirrhosis was present the individual was by any means a total abstainer. Frierichs reports thirty-six cases of cirrhosis, in only twelve of which the patients used alcohol to excess. Bamberger asserts that only one third of the cases were marked alcoholics. Lange reports that in only 50 per cent. of his cases was alcoholism present. Price reports 142 cases, with excessive use of alcohol in seventy-two. Naunyn lists 170 cases, in 108 of which the patients were steady drinkers, but states that he would hesitate to diagnose portal cirrhosis in the absence of an alcoholic history. Pilcz reports that in 151 cases of alcoholic psychosis, 14.5 per cent. showed changes in the liver, and in nonalcoholic psychosis, 13.8 per cent.

In England, a collective investigation committee [3] was selected to report on the relation of this disease to intemperance. In sixty-seven cases carefully analyzed, 60 per cent. of the patients were described as hard drinkers, 30 per cent. as free drinkers, and the remainder as fairly temperate. For a number of years I have gone carefully into the history of every case of cirrhosis on my service at Cook County Hospital, and I have never failed to obtain a history of marked alcoholism.

With this rather conflicting evidence, it is of interest to see the effect of prohibition on the incidence of portal cirrhosis in large general hospitals. With this in mind, a study was made of the number of cases of cirrhosis entering the Cook County Hospital from 1910 to 1920, inclusive. Attention was attracted to the subject by the almost complete disappearance of cirrhosis during the last year in the wards of this institution.

Prohibition in Chicago since July 1, 1919, has been far from complete, as shown by the number of cases of acute alcoholism admitted to the County Hospital. That the amount of liquor consumed by the laboring class has been greatly reduced must be admitted. While it could be obtained without great difficulty, its cost, quality and the fear of wood alcohol poisoning have greatly lessened the number of consumers and the amount taken. Beer has been practically unobtainable.

TOTAL ADMISSION AND CASES DIAGNOSED AS PORTAL CIRRHOSIS

Year	Total Admission	Cases of Portal Cirrhosis
1910	33,232	137
1911	29,975	147
1912	30,392	154
1913	27,889	132
1914	29,330	141
1915	27,104	151
1916	31,261	160
1917	22,680	156
1918	29,527	87
1919	27,819	48
1920	27,862	19

The accompanying table shows the total admission and the number of cases diagnosed as portal cirrhosis from 1910 to 1920, inclusive. As will be noticed from this table, there has been a rapid reduction since 1917. We have been unable to explain the sudden drop in 1918, as liquor at that time was readily obtainable. Its cost had not been greatly increased. It is possible that the closure of the hospital to all but acute cases for six weeks during the autumn of this year on account of the influenza epidemic might account for a slight reduction. A study, however, of the monthly admission shows that it had little if any effect. That this reduction was in all probability, however, due to a lessened consumption of alcohol is shown by the marked reduction during 1919 and 1920, after national prohibition came into effect.

The histories of the nineteen cases entering during 1920 were reviewed with the hope of determining whether these patients had been able to secure alcohol after July 1, 1919. All but one gave a history of chronic alcoholism, but no mention was made of whether they had been able to obtain liquor after July 1. This question must therefore remain undetermined.

From these figures there can be little doubt that portal cirrhosis, in this country, at least, is associated largely and possibly entirely with the use of alcohol.

The very sudden drop in the incidence of cirrhosis following prohibition suggests that progression of the process in the liver ceases when alcohol is discontinued. With few exceptions the diagnosis of portal cirrhosis when made at the Cook County Hospital indicates very advanced cases with ascites, and cirrhosis in this stage has almost disappeared.

122 South Michigan Avenue.

3. Owen, I.: Collective Investigation Committee Report upon the Connection of Disease with Habits of Intemperance, Brit. M. J. 1, 1880.

CHRONIC PULMONARY TUBERCULOSIS, PRIMARILY IN THE LOWER LOBE *

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Chronic pulmonary tuberculosis primarily in the lower lobe is rather a rare occurrence—so rare, indeed, that many good clinicians assert that such a condition never occurs. Speaking about the differential diagnosis of chronic nontuberculous lesions, Landis [1] says: "As I have repeatedly emphasized, tuberculosis is never a basal condition. The fact that the physical signs are entirely limited to the base of the lung therefore excludes tuberculosis at once." Many other authorities are of the opinion that the progress of pulmonary tuberculosis is invariably from the apex downward, following the "line of march" described by Fowler.[2]

Some observers, on the other hand, consider tuberculosis at the base comparatively common. Kidd [3] quotes various authors who found tuberculous lesions primarily at the base in one out of from sixty to eighty cases, and he himself describes two cases of basal lesions out of 412 that came to necropsy.

The conflict of opinions as to the frequency of basal tuberculous lesions is probably due to the difference in the diagnostic methods employed in studying the cases. Reports based on physical signs alone are extremely unreliable. It is only after a careful study of the history, physical and roentgenologic findings, and repeated sputum examinations that a tuberculous lower lobe lesion can be differentiated from the various nontuberculous affections.

In order to ascertain the frequency with which lower lobe tuberculous lesions occur, I have reviewed the

* From the Montefiore Home Country Sanatorium.

1. Norris and Landis: Diseases of the Chest, 1920, p. 471.
2. Fowler, J. K.: The Localisation of Lesions of Phthisis, London, 1888.
3. Kidd, Percy: Lancet 2:615 (Oct. 2) 1886.

cases in 1,000 consecutive admissions to the Bedford Sanatorium, and I was able to find only three cases of definite lower lobe tuberculosis. On physical examination, lower lobe lesions were found in eighteen other cases; but after careful study, seventeen cases proved to be nontuberculous, and in two patients old tuberculous lesions were found at both apexes, in spite of the fact that extensive physical signs were found at one base and that the upper lobes appeared to be normal. In the seventeen nontuberculous cases, eleven patients suffered from chronic nonspecific inflammatory conditions, and five from bronchiectasis. Following is a report of the three cases of lower lobe tuberculosis:

REPORT OF CASES

Case 1.—*History.*—A. J., a woman, aged 22, schoolteacher, admitted to the sanatorium, Nov. 3, 1919, gave a history of eleven months' illness supposedly following an attack of influenza. She had considerable cough and expectoration and frequent afternoon fever up to 101 F. She also lost considerable weight and strength, and had frequent pains in the right chest, but she never had any hemoptysis. During that time the patient was seen by several well-known physicians, but nobody diagnosed her case as tuberculosis. Several sputum examinations were reported negative. Finally a roentgenogram was taken by one of her physicians on the basis of which tuberculosis was diagnosed, and she was sent to the sanatorium for treatment.

Examination.—November 4, there was considerable dulness and the feeble breathing from the lower angle of the scapula to the base on the right side, and numerous moist râles were found at the right base, extending up to the fifth dorsal spine posteriorly and to the fourth rib anteriorly. Subsequent physical examinations revealed an extension of the lesion upward, the râles extending up to the level of the third spine posteriorly and to the third rib anteriorly. Signs of extensive cavity formation at the base could also be elicited later. Tubercle bacilli were found in the sputum on several examinations. The urine examination and the Wassermann test were negative.

Roentgenologic Examination. — Stereoscopic roentgenograms taken in November, 1919, disclosed extensive dense mottling at the right base and also evidence of a large cavity in the right lower lobe. There were also a few patches of slight infiltration on a level with the second space; otherwise the upper part of the lung appeared clear. Subsequent fluoroscopic and roentgenographic examinations revealed a moderate extension of the lesion upward. A small amount of fluid within the basal cavity described above was occasionally seen on fluoroscopic examination.

Clinical Course.—While the patient was at the sanatorium, the disease ran a rather active course. She had considerable fever and frequent night sweats. She also lost much weight and strength. Right pneumothorax was induced, Jan. 7, 1920, and a fair collapse was obtained, but the patient soon developed a purulent effusion. She was then treated by aspiration and substitution of air, and the same treatment is still continued. The patient is doing remarkably well. She gained considerable weight and strength, and is practically free from symptoms.

Case 2.—*History.*—S. K., a schoolgirl, aged 16, was admitted to the sanatorium, March 20, 1920. She gave a history of about six months' illness. She had moderate cough and expectoration, and fever up to 100 daily for several months and occasionally up to 102 for the three weeks preceding her admission. She also complained of frequent pain in the chest, and lost about 7 pounds in weight in the course of three months. She never had any hemoptysis.

Examination.—March 23, there were noted marked dulness, feeble breathing, and a few râles from the lower angle of the scapula to the base on the right side. At the right apex there was slight dulness and bronchovesicular breathing, but no râles. There were no abnormal signs in the left lung. Repeated examinations at frequent intervals revealed a gradual extension of the lesion upward, till finally numerous moist râles could be elicited up to the fourth spine posteriorly and to the third rib anteriorly. Signs of cavitation could also be elicited at the base posteriorly. The sputum was positive on many examinations. Urine examination and the Wassermann test were negative.

Roentgenologic Examination.—A roentgenogram, taken April 7, disclosed a dense mottled shadow extending from the level of the fourth rib anteriorly to the base, the shadow increasing in density when approaching the base. A moderate sized cavity partly filled with fluid was seen on a level with the fourth space and fifth rib. Another plate, taken June 9, disclosed practically the same as the plate just described, except that some mottling could be seen extending for about one interspace above the level seen on the earlier plate. A third roentgenogram, taken July 4, disclosed, in addition to what was seen on previous plates, submiliary-like infiltration spreading upward to the level of the first rib, the apex still remaining clear.

Clinical Course.—While the patient was at the sanatorium the disease was running a rather active course, with considerable fever, cough and expectoration, and marked loss of weight and strength. Artificial pneumothorax was induced, July 28. A fair collapse was obtained, but the patient has only slightly improved. She is still under treatment.

Case 3.—*History.*—F. A., a housewife, aged 40, admitted to the sanatorium, Feb. 17, 1919, gave a history of about one year's illness, the predominating symptoms being cough and expectoration, which were worse at night. She also had several hemoptyses during the year of her illness, the amounts ranging between 1 and 8 ounces. The patient asserted that she never had any fever, but she had frequent night sweats for a few weeks. She thought she lost some weight and strength, but she never knew her exact weight.

Examination.—February 19, there were moderate dulness at the right base and many moist râles from the second rib and the fourth spine to the base, the signs being most marked at the extreme base posteriorly. The right apex and the left lung were apparently free. Subsequent examinations detected practically no change. The sputum was positive on many examinations.

Roentgenologic Examination.—Stereoscopic roentgenograms, taken March 3, revealed very dense mottling of the lower two thirds of the right lung, the greatest density being at the base. The apexes were apparently free. There was also considerable density at the root of the left lung. Another roentgenogram, taken after pneumothorax was induced, gave evidence of a cavity at the right base.

Clinical Course.—The patient stayed at the institution only about three months, and her condition remained practically stationary.

COMMENT

There is hardly any doubt that in all these three cases the lesion developed primarily in one lower lobe. The fact that the disease has advanced to the stage of extensive cavitation in one lower lobe, and at the same time repeated physical and roentgenologic examinations fail to reveal any definite lesion in the upper lobes, warrants the conclusion that we are dealing with a primary basal lesion. But in the first two cases we also had occasion actually to observe the spread of the lesion from the base upward.

In considering the diagnosis of such cases, one must bear in mind that the greatest majority of basal lesions are not tuberculous. Particular care must therefore be exercised before tuberculosis is diagnosed in a patient who presents a lower lobe lesion. Some authors are of the opinion that no lower lobe lesion should be considered tuberculous unless tubercle bacilli are found in the sputum. A study of Case 1, however, will show that it is not always safe to follow this rule. It should be noted that in that case the patient had been ill for about one year and the lesion had advanced to the stage of extensive cavitation before tubercle bacilli could be found in her sputum. At any rate, once the possibility

of lower lobe tuberculous lesions is admitted, it would be illogical to wait with our diagnosis until tubercle bacilli are found in the sputum, as an early diagnosis is of importance in basal as well as in apical lesions.

It is my opinion that if a patient presents the clinical symptoms of tuberculosis, such as cough, expectoration, afternoon fever, night sweats and loss of weight and strength, and dulness, altered breathing and moist râles are found at one base and a roentgenogram shows the characteristic mottling density at the site where the lesion is found on physical examination, a diagnosis of lower lobe tuberculosis is justified even if no tubercle bacilli are found in the sputum.

The roentgenologic evidence is of paramount importance in the diagnosis of basal lesions when no tubercle bacilli can be found in the sputum. In lesions of considerable magnitude, the roentgenographic appearance of tuberculosis is almost pathognomonic when interpreted by one experienced in this work. At any rate, the nontuberculous lower lobe conditions that are most frequently confused with tuberculosis clinically are easily differentiated roentgenologically. In chronic nonspecific lung infection and bronchiectasis—the two conditions that are most commonly mistaken for tuberculosis—the roentgenogram is usually clear even in cases in which extensive physical signs are found, while tuberculous lesions of such extent never fail to give roentgenologic evidence of their existence, and in most cases the lesion demonstrated on the roentgenogram is much more extensive than what was expected from physical examination. The roentgenographic appearance of pulmonary abcess or pulmonary neoplasm can hardly ever be mistaken for tuberculosis. In view of this, it is almost superfluous to state that a roentgenologic examination is absolutely indicated in all lower lobe pulmonary conditions.

AMERICAN CHILDREN IN THE TROPICS

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KACHEK, HAINAN, CHINA

Of sixteen children born to American missionaries in Hainan during the last seven years, all are alive and well today. This fact is of interest because Hainan is in the tropics, where the climatic conditions are marked by great heat and humidity, and where diseases peculiar to the tropics are prevalent, and unchecked except for such control as is exercised by the foreigners in their own homes and compounds.

The mortality among Chinese infants and children is high. Infantile tetanus takes a heavy toll. Smallpox is deadly. Malaria is universal, and, if not fatal during childhood, leaves its victims more or less impaired, as the anemias and large spleens show. Very often maternal illness—in most cases malaria and hookworm—or poverty, causes diminution or stoppage of the milk supply. The Chinese do not have dairies, nor do they use milk, except as a few are learning to use condensed milk. Therefore, when the milk supply gives out, either some neighbor acts as wet nurse, or feeding with rice is begun. Nutritional disturbances are the cause of many deaths among the Chinese. During the early years of childhood, dysentery, especially of the amebic type, is common and virulent. During epidemics of cholera and plague, children as well as adults are taken.

These are some of the conditions prevailing here. The American child has to combat, in addition, the great heat, which apparently does not greatly affect native children.

ADVANTAGES OF HEREDITY AND CARE

Missionaries are required to pass a physical examination before being sent to the field. Those who pass are the healthy, and those free from latent disease as far as can be determined. The heredity of their children is good. This is of the greatest importance, and is in marked contrast to the heredity of the Chinese here, who have a history of generations of malaria, hookworm, syphilis, tuberculosis, and other wasting diseases behind them. Whether the heat of the tropics plays a great part in the determination of the energy and health index of the people cannot be definitely established until the disabling factors, chiefly malaria and hookworm, are eliminated.

It is a rule that there shall be a physician in each mission station where foreigners are. As a result foreigners are more or less constantly under observation; treatment in case of sickness is administered early, and in maternity cases, the best of care before and after childbirth is given.

At the outset, therefore, the children are endowed with good heredity, and are surrounded with proper medical care. Infantile tetanus is eliminated; smallpox is prevented by vaccination. Malaria is controlled by mosquito nets, screening, and sanitary measures in the compound. Unfortunately, in Hainan, malarial fever among the foreigners is not entirely eliminated, but they are getting it under control now. The American children wear shoes and thus escape the most common method of infection with hookworm.

The birth weight of the American children in Hainan does not differ from the birthweight in America. The highest weight recorded was 10 pounds, 5 ounces; the lowest 5 pounds, 9 ounces. Within a year three children weighing more than 8 pounds were born. The measurements of the head, thorax, and abdomen were all normal.

PROBLEMS OF FEEDING

Most of the children were breast fed. The importance of maternal feeding to the life of the child being recognized and emphasized, especially in the absence of fresh cow's milk, the mothers did their best. The free use of malted and condensed milk and other liquids, by the mothers, helped to keep up the supply. However, only a few mothers were able to nurse their babies for the full nine months. For some of the children, as the maternal milk supply diminished, artificial feeding supplemented breast feeding. In general, it is harder to keep up the milk supply in the tropics than at home.

In the feeding problem, scales and schedule were of utmost value. Rules as to weighing, and as to regular intervals between feedings were generally kept, contributing not a little to the success of the outcome. This was true in all the stations of the mission. For the cases under my care, the four-hour feeding schedule was used, and was found very satisfactory both for the child and for the mother.

The intelligent cooperation of the mothers has helped greatly in the problem of feeding. One mother was unable to nurse her children. The babies developed serious digestive disturbances. It required the most careful study to work out suitable formulas with the materials at hand. The mother helped in the study of each case, and today she has three books of well written records, and three healthy children to show

for her work. At present she is nursing a fourth child, aided by supplementary feedings of dry milk.

The lack of fresh cow's milk has been a serious handicap. Various malted milks and modified condensed milks have been used. No hard and fast rule could be made in any case. Each baby was a law unto itself, and required constant study. The fat content of goat's milk (8 per cent.), and buffalo cow's milk (12 per cent.) is too high to allow either of these to be used unmodified, and in neither does the cream separate readily. So far, dry milk has been used in one case only, but it shows promise of value.

No cases of scurvy or rickets developed. Fresh fruit juices were used liberally. After the children were weaned, condensed milk was used, to which were gradually added soft boiled rice and chicken congee. The weight and measurements of the children for the second and third years have been normal.

CLIMATIC CONDITIONS

The care of the skin is an important part of tropical hygiene for children. Prickly heat tends to cover the body. Boils develop very easily. This holds true among the Chinese children also; tots with head, arms, and legs covered with large boils are a common sight. A powder of zinc oxide, 8 parts; starch, 8 parts, and boric acid, 1 part, applied liberally and often, has proved very useful both for children and for adults.

The great heat during nine or ten months of the year is a problem to contend with. There is an almost constant flow of perspiration, day and night. And it is impossible for a child to play outside after 8 o'clock in the morning, or before 4:30 or 5 in the afternoon.

To meet this problem, not only for children, but for the comfort of adults also, the houses are built with wide verandas, with a maximum exposure to the prevailing breezes (in Hainan, the south monsoon). The constant flow of perspiration is a source of danger if a sudden breeze comes up, causing abdominal chill. This chill may start a diarrhea ending in dysentery, or it may bring out latent malaria. It is guarded against by the use of a thin flannel abdominal band until the child is 2 or 3 years old, and after that by careful watching.

In the control of these skin and heat manifestations—prickly heat, boils, abdominal chills, and exposure to the heat of the day—the cooperation of the mothers has helped greatly. However, the long continued heat does depress. Appetites flag, play is listless, cheeks become white, and while no disease is apparent, it is evident that the energy of the child is lessened. If is for this reason that changes to cooler climes for a part of the hot season are made, and it is astonishing how quickly vigor is restored after such a change, or during the two or three cooler months of the year.

The matter of the heat of the tropics in relation to the general health of the American child is still a subject of study. While native children seem to stand the heat more or less well, their physical condition is lowered by the tropical diseases to which they fall prey. Whether the characteristics of tropical races are due to the heat or to disease will be determined only as disease is stamped out. While the American child does not show definite disease, the heat is certainly felt. On the other hand, life in the tropics during childhood seems to have no appreciable effect on the mentality or the physical development of later years.

TROPICAL DISEASES

Of the so-called tropical diseases, malaria has had the greatest effect upon the children. The danger of the pernicious type of the disease is a constant source of anxiety to the physician. In Hainan the problem is being met by careful search for breeding places of mosquitoes, by drainage and by the clearing of underbrush on or near the compounds where the foreigners live; also by screening and the use of mosquito nets and quinin. During attack, fairly large doses are necessary, 8 grains daily for a year-old child not being considered large. Notwithstanding long continued courses of treatment, relapses occur. The parasitic index is of little value, as the parasites disappear from the peripheral circulation upon administration of quinin. In the case of malaria, I feel that sanitary measures can do away with the disease and thus remove a great source of disability in children in the tropics.

Following malaria, the greatest cause of discomfort, and often of ailments more or less severe is the roundworm. Santonin has often a surprising effect in cases of abdominal distress, loss of appetite, and listlessness. The boiling of vegetables is often incomplete, the ova of the ascaris being apparently quite resistant to heat.

It is possible to protect American children in the tropics from plague and from cholera in time of epidemics. Dysentery of the amebic type is common and has occurred among the American children here. Emetin has proved valuable in these cases. With great care this disease can be prevented. In connection with amebic dysentery, the possibility of recurrence and the formation of liver abscess years after the childhood infection must always be borne in mind by the physician in America who treats patients who have lived in the tropics in childhood. In fact, in such cases a thorough examination of the blood and feces will often reveal the existence of tropical diseases contracted long ago, and causing symptoms after years of quiescence.

Of the so-called "children's diseases," measles and whooping cough are found in Hainan. Scarlet fever and diphtheria apparently do not exist here. Whether this is due to the heat attenuating the virulence of the infecting organisms, or whether they just haven't found their way into the tropics, is not known. Furthermore, the pneumonias, while occurring in Hainan, are not so common as in America. Rheumatic fever, if present at all in the tropics, is rare, at least in Hainan. And, as may be expected, with the absence of scarlet fever and rheumatic fever, nephritis in children is not common, although I have seen cases among Chinese children. Colds and sore throats are common, and a mild form of tonsillitis, but severe tonsillitis and quinsy are not found frequently in Hainan.

CONCLUSIONS

The commercial expansion of the United States means that more men are going into the tropics. The physician at home will be consulted by these men as to the advisability of taking their families with them to their new place of business. Women will seek advice on the bearing and rearing of children in these climates.

It is my experience and observation, over a period of six years' residence in the tropics, that healthy American children can be brought up in the tropics, and no American need hesitate to go to tropical climates if these conditions are met:

1. The housing facilities must be ample to secure plenty of space, good ventilation, and proper screening protection. From purely business considerations, no business firm should ask an employee to move to a place where housing conditions are not of the best.

2. The wife and mother must be prepared to enter on a period of ceaseless vigilance and cooperation with the physician in: (*a*) problems of nursing and feeding of infants; (*b*) sterilization of drinking water and food; (*c*) fighting against flies and mosquitoes, and (*d*) care of the skin, and the protection of children from the heat of the sun and from chills.

The sixteen healthy American children in Hainan owe a great deal to the intelligent care bestowed on them by their mothers.

3. No family should live in a place where good medical care is not available at the shortest notice. Many tropical diseases are quick and deadly in their action, especially in children.

4. Frequent (yearly) changes from the heat into a cooler climate should be possible for mother and children.

Of these conditions, the most important is the responsibility resting upon the wife and mother, from the moment of the birth of the child, through the nursing period, especially if there are difficulties of feeding, until the child leaves the tropics for study at home.

If these conditions are met, American children born in the tropics will be healthy. And there will be advantages, too. The careful watchfulness of mother and physician, and the rigid hygiene as practiced in the tropics, together with the absence of scarlet fever, diphtheria, and other diseases of colder climates, should make for healthy bodies.

American Presbyterian Hospital.

LESSONS IN THE MANAGEMENT OF DIPHTHERIA

ESPECIALLY AS SUGGESTED BY THE STUDY OF A SERIES OF ONE HUNDRED AND FORTY-SEVEN FATAL CASES *

GEORGE H. WEAVER, M.D.

CHICAGO

It is reasonable to suppose that an infectious disease which can be readily and certainly recognized, whose cause is known and can be traced in its dissemination, and for which, when used in time, there is a specific cure, would be quickly eliminated from an intelligent community and cease to cause any considerable number of deaths.

While the conditions enumerated obtain in diphtheria, the assumed results have not been realized. It is true that the prevalence is less and the death rate lower than in the period preceding the introduction of the bacteriologic method of diagnosis, and the immunizing and therapeutic use of diphtheria antitoxin; but during recent years there has been little appreciable improvement.

The death rate in Chicago from diphtheria during the last twenty years shows no marked decrease. From 1897 to 1906 it was 3.72 per 10,000 and from 1907 to 1916 it was 3.34 per 10,000 of population.[1]

The fatality rate in diphtheria in Chicago from 1912 to 1919 is given in Table 1. While there is a slight fluctuation from year to year, it is evident that there has been no appreciable decrease in the proportion of cases of diphtheria in which the patients die. The fatality rate for the last four years is almost the same as that for the preceding four.

These figures justify the conclusion that in Chicago advantage is not being taken of the means at hand for the cure of diphtheria. This is being constantly impressed on those having to do with the care of diphtheria patients in hospitals. With the purpose of learning something of the factors which have been operating to defeat our efforts in reducing the mortality from diphtheria, I have made a study of the fatal cases of the disease observed in the Durand Hospital during eight years (1913-1920). The results of the study are now submitted, with some suggestions as to lines of effort which might reasonably be expected to lead to some improvement. It is realized that much is a repetition of what others have done; but it is hoped that, coming from a different source and based on the study of new material, it may serve some useful purpose. By repetition, lessons are finally learned.

TABLE 1.—FATALITY RATE OF DIPHTHERIA IN CHICAGO *

Year	Per Cent.		Year	Per Cent.	
1912	13.04	11.63 per cent.	1916	11.26	11.31 per cent.
1913	11.08		1917	11.82	
1914	10.87		1918	12.67	
1915	11.60		1919	9.31	

*Report and Handbook of the Department of Health, p. 383.

CONDITIONS OBSERVED

Among informed persons there is no need of quoting figures to show that diphtheria antitoxin is a specific curative agent in diphtheria and that the efficiency of its action depends on adequate dosage and early administration. Most deaths in diphtheria follow failure to satisfy these demands. In the 147 fatal cases in our series, eighty, or 54.4 per cent. of the patients, received no antitoxin at home, and nine of them died almost at once after admission to the hospital, six before any antitoxin could be given.

In sixty-seven cases in which antitoxin had been given at home, the amount could be accurately determined and was 3,000 units in two; 4,000 units in one; 5,000 units in twenty-nine; 8,000 units in two; 10,000 units in eighteen; 15,000 units in five; 20,000 units in seven, and 30,000 units in three.

Of the larger doses, many were given by the physicians of the department of health to desperately sick patients just before removal to the hospital. In only seven cases had more than one dose been given. Of the entire number of fatal cases, sixty-two were laryngeal, in thirty-six of which no antitoxin had been received before coming to the hospital.

It was often difficult to determine accurately when the disease began, because of the lack of intelligence in parents. Many times parents place the onset at too late a time in order to avoid the appearance of having neglected the child. In the 141 fatal cases in which antitoxin was given before or after entrance to the hospital, the first antitoxin was given as indicated in Table 2.

Of these patients, 70.2 per cent. received their first antitoxin between the third and sixth days. In all the cases in which the first antitoxin was given on the first day, the dose was small and the disease progressed in spite of it.

* Read before the Chicago Medical Society, May 4, 1921.
* From the John McCormick Institute for Infectious Diseases.

1. Report and Handbook of the Department of Health of the City of Chicago for the Years 1911 to 1918, Inclusive, Chicago, 1919, p. 1434.

In this summary one is impressed by: (1) the large number who received no antitoxin at home; (2) the relatively small doses of serum usually given at home, and (3) the lateness of the primary administration of serum.

CAUSES

In no single case had an adequate amount of serum been given early. When an attempt is made to explain why these conditions obtained, a variety of factors must be taken into account.

1. *Neglect by Parents.*—This was the most frequent reason for failure to secure proper early treatment. This neglect naturally was unintentional, and was dependent on ignorance and failure to appreciate the nature and danger of the disease until its insidious course had produced irreparable damage. Sometimes poverty deterred the parents from calling for help. The "Christian science" delusion was responsible for the neglect of two children until the disease was far advanced.

In an investigation of seventy-five deaths from diphtheria by the Chicago Department of Health, thirty were found to be due to failure to call a physician at the beginning of the illness.[2]

2. *Inefficient Professional Care.*—This must be credited with responsibility for the unfortunate outcome in no small number of cases. Because of inability always to secure accurate data, we cannot quote figures in this connection. Of the seventy-five deaths investigated by the Chicago Department of Health, twenty-seven are put down as due to failure of physicians to make an early diagnosis, and twelve as probably due to insufficient antitoxin. The defects in the management of diphtheria among physicians, as shown by our study, may depend on several factors:

TABLE 2.—DAY ON WHICH ANTITOXIN WAS GIVEN

	Number of Cases
First day	8
Second day	15
Third day	30
Fourth day	35
Fifth day	20
Sixth day	14
Seventh day	11
Eighth day	6
Ninth to fourteenth days	5

A. Failure to make cultures from sore throats. Universal cultures made early would detect most cases in a few hours. We have been impressed by the frequency with which laryngeal symptoms develop in children who have been treated three or four days for a simple tonsillitis, no cultures having been made in the interval. There have been a number among our cases of severe diphtheria in which the patients were admitted late after being repeatedly seen by physicians who have treated them for peritonsillar abscess, even making incisions to reach expected pus. When a virulent diphtheria infection is limited to one tonsil, and the swollen, edematous peritonsillar tissues hide the tonsil and its covering of pseudomembrane, with the swelling and tenderness of the corresponding side of the neck, a suspicion of a peritonsillar abscess is not surprising. Cultures in these cases might save much valuable time.

B. Failure to administer antitoxin at once and in every case which looks suspiciously like diphtheria, without waiting for the result of cultures, or in the presence of a single negative culture. An encouraging sign is the increasing frequency with which tonsillitis patients are coming to the hospital after having received antitoxin from the attending physician. During 1920, sixty-five patients with tonsillitis which could be differentiated only by a bacteriologic examination came to the hospital as having suspected diphtheria. Of these, forty-nine, or 75.3 per cent., had been given antitoxin before entrance.

C. Failure to follow patients with sore throat after seeing them once. In some of the fatal cases the patients were seen on the first day, a diagnosis of tonsillitis made, a gargle prescribed, and no culture taken. A subsequent inspection or a culture would usually have enabled the physician to correct his diagnosis and to institute proper treatment. In other instances, patients were seen early, a correct diagnosis made and antitoxin given; but, the initial dose being too small, the disease progressed to a fatal termination.

D. Insufficient doses of antitoxin, which were often given, especially in toxic cases. In diphtheria a therapeutic dose of antitoxin should be at least 5,000 units, and often from 10,000 to 20,000 units. In cases in which highly virulent strains of diphtheria bacilli are concerned and are producing enormous quantities of toxin, doses of 1,000, 2,000, 3,000 or even 5,000 units are insufficient. Such doses neutralize some toxin and help to hold the disease in check, but often should be followed by subsequent administration. Better results are secured when all the antitoxin required is given at the initial injection. Except in early or mild cases, 5,000 units is too small a dose. In cases of laryngeal diphtheria, in which promptness of effect is imperative, the dose should not be less than 10,000 units.

E. Failure to get the antitoxin quickly in contact with the circulating toxin. Almost without exception the antitoxin given patients at their homes has been injected subcutaneously, although much prompter effects follow intramuscular injection. Some concentrated antitoxin is so thick that it passes through a needle with difficulty and is absorbed very slowly. Such should be diluted with salt solution before injection.

F. Confusing diphtheria with other conditions. In two instances, cases of virulent diphtheria came late to the hospital, having been considered as mumps by the attending physician because the edematous swelling was at first unilateral. An examination of the throat would have led to a proper diagnosis. Reference has already been made to confusion in some cases because of a resemblance to quinsy. Laryngeal diphtheria was a few times diagnosed and treated as catarrhal croup, no antitoxin being given until obstruction was well developed.

Of the reasons for the shortcomings of physicians in the management of diphtheria, lack of personal experience and infrequent contact with the disease are probably most important. If the reported cases of diphtheria were evenly distributed among the physicians of Chicago, each would see about one case a year. If the fatal cases were similarly distributed, each physician in Chicago would observe a death from diphtheria once in from seven to ten years. The chance of his seeing a fatal case of diphtheria is not much greater than that of seeing a death from an automobile accident. Medical students see but little of the contagious diseases, and most interns in general hospitals have no experience in treating diphtheria, often never seeing a case.

So much has been said and written about anaphylactic shock from serum that an unfounded fear of this

2. Report and Handbook of the Department of Health, Chicago, 1919, p. 288.

accident seems quite widely spread among physicians. Anaphylactic shock from serum is a very rare occurrence. Compared with the danger from diphtheria, its danger is infinitesimal and is to be ignored.

RECOMMENDATIONS

From our study, one may naturally conclude that the important fundamental factor in further reducing the deaths from diphtheria must be education. The public must be taught to secure professional advice at the onset in every case of sickness attended with sore throat or with laryngeal symptoms. Only then can cases of diphtheria be recognized early and curative treatment instituted. The channels through which this education can be disseminated are numerous. Some of the ways in which much can be accomplished are: personal instruction of mothers; carefully prepared articles, published in the newspapers in various languages, and disseminated as pamphlets; presentations on the moving picture screen, and instruction in school of the older children, who then become most efficient teachers of those at home. Like all educational efforts, in order to be efficient these must be continuous and carried out by persons with proper preliminary training. Much of this teaching must be done by physicians and nurses. This presupposes a proper education of the teachers. No nurse is properly qualified to act in her professional relations or to reach her greatest usefulness unless she has practical experience and training in the management and care of contagious diseases. Such a training should be included in the preparation of every nurse. It would be desirable for all interns in hospitals that have no department for contagious diseases to serve a short time at the end of their service in an institution which cares for these diseases. By utilizing municipal institutions, this would seem practical.

Physicians cannot be too often urged to examine the throat in every case that shows abnormal conditions of the neck, and in every sick child, and to make cultures from all sore throats; to administer diphtheria antitoxin in all suspicious cases without waiting for cultures, or in spite of a reported negative culture; to follow up all cases of sore throat until diphtheria has been certainly excluded; never to rest content when one dose of antitoxin has been given in a case of diphtheria, but to follow the case closely until the disease has been certainly controlled; to inject all therapeutic doses of antitoxin intramuscularly or occasionally, in very urgent cases, intravenously; to suspect every case of croup as one of possible laryngeal diphtheria, and to treat as diphtheria all such cases as do not promptly clear up.

To encourage such lines of action, culture outfits should be so distributed that they can be obtained when wanted with little trouble or loss of time. It is a question whether it would not be best to discontinue the issue of all curative packages of antitoxin of less than 5,000 units and to make 10,000 unit packages readily available.

The administration of the toxin-antitoxin mixture to all young children is to be encouraged; and if widely enough used, it should materially reduce the incidence of diphtheria.

637 South Wood Street.

Clinical Notes, Suggestions, and New Instruments

APPARATUS FOR CLOSED METHOD OF DRAINAGE IN EMPYEMA

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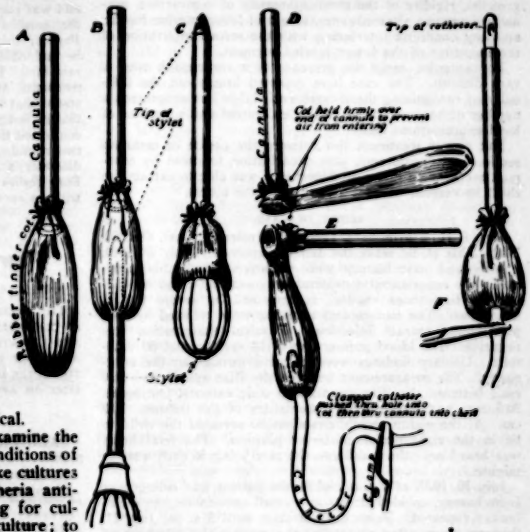
The simplified apparatus for the closed method of drainage of empyema, particularly in children, which I describe, I prefer to others because of its simplicity. I got the idea from the use of a finger cot as a valve in draining the air out of a pleural cavity in pneumothorax, a description of which method was published a number of years ago.

An ordinary large size trocar is used, the stylet being withdrawn. A finger cot is tied tightly around the base of the cannula. The stylet is then pushed through the tip of the finger cot into the cannula, and the apparatus is now ready for use.



Apparatus for closed method of drainage in empyema: *A*, cannula with finger cot attached; *B*, stylet pushed through finger cot; *C*, apparatus ready for introduction into chest; *D*, stylet withdrawn and finger cot held over end of cannula to prevent air from entering; *E*, clamped catheter pushed through hole in cot; *F*, clamped catheter pushed through cannula and into chest.

The tissues having been anesthetized with 1 per cent. procain, a narrow bladed knife is inserted through the skin over the rib below the contemplated opening and pushed through the intercostal muscles in the space above, down to the pleura. The trocar, with stylet inserted, is then thrust into this opening and the stylet withdrawn. As the stylet is withdrawn, the end of the finger cot is dropped over the open end of the cannula, effectually keeping out the air. A small rubber tube or catheter, clamped at the end, is now pushed through the opening in the finger cot made by the stylet, the side of the finger cot remaining over the end of the cannula. The end of the finger cot is now wrapped around the opening where the catheter goes in to keep it air tight, and the catheter pushed through the cannual into the pleural cavity. The cannula is now withdrawn, the clamp replaced, and the tube held in place by means

of adhesive plaster. The accompanying diagrams will further explain this device.

The advantage over other similar devices is the simplicity and the ease with which the apparatus may be made from an ordinary trocar and finger cot.

A CASE OF CONTRACTION RING DYSTOCIA

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In looking over the literature on contraction rings during labor, one is impressed with the lack of definiteness of the terms. These rings are variously called Bandl's or retraction or contraction rings. Up to the present there has been no clear definition of the differences of these rings which is generally accepted. The etiology is unsettled. Among the predisposing causes mentioned are contracted pelvis, pelvic growths, rigidity of the cervix, intensity of contraction, premature rupture of membranes, length of labor, uterine inertia, and any condition interfering with the serous infiltration of the structure of the lower uterine segment.

To recognize early the presence of a contraction ring is very difficult. The case here reported brings out the difficulty of recognizing these cases until labor has progressed a number of hours with the patient exhausted and a number of local examinations made.

The proper treatment lies between the choice of cesarean section and craniotomy, plus decapitation followed by cesarean section. In this case, however, I was able to extract the child by version without a rupture of the uterus.

REPORT OF CASE

Mrs. I. H., a primipara, aged 25, menstruated last, Oct. 20, 1919. This would make the date of expectancy, July 27, 1920. Family and past history were negative. With this pregnancy she experienced considerable nausea and vomiting during the first three months, accompanied by severe frontal headaches. The nausea and vomiting were relieved by corpus luteum extract injections. Physical examination was negative. The blood pressure was 118 systolic and 80 diastolic. Urinary findings were negative throughout the pregnancy. The measurement between the iliac spines was 26.0 cm.; between the iliac crests, 28.0 cm.; external conjugate, 20.5 cm., and between the tuberosities of the ischium, 10.5 cm. At the eighth month, examination revealed the child to be in the right occipitoposterior position. The fetal heart was heard near the umbilicus, the rate being 36 each quarter minute.

July 10, 1920, at 4 p. m., while the patient was riding over some bumpy, cobbled streets in a small automobile, the membranes ruptured. Pains did not start until 5 a. m., July 11, thirteen hours after rupture of the membranes. Because of the dry labor the pains progressed slowly in frequency and severity during this day. At 8 a. m., July 12, they were of moderate severity, occurred every five or six minutes, and lasted about fifteen seconds. There was a small amount of bleeding. Examination revealed the cervix to be somewhat edematous and about 6.5 cm. dilated. The mother's condition was good and the fetal heart rate was 36 to the quarter minute. The patient was given the test of labor. At 8 p. m. the pains were bearing down in character, severe, and occurred every two and one-half minutes. Examination revealed the cervix to be almost fully dilated.

The patient was anesthetized, gas and oxygen being used, followed by ether. Forceps were twice applied and slipped off each time. On introduction of my hand I found the uterus to be hour-glass in shape with a firm tetanic muscular contraction ring about the neck of the child. I could also feel a pulseless loop of cord about the child's neck. This contraction ring was so strong that it took all my strength to move my hand at all. Deep anesthesia was used without much success in relaxation of this band. I attempted to dilate it with my hand without any success. Finally, after a number of manipulations, I was able to push the head into the upper portion of the uterus. I now did a version and pulled down the feet of the child. The child was readily extracted, slight difficulty being encountered in delivering the head.

The patient's condition was excellent and there was not much loss of blood. A second degree tear occurred, and this was readily repaired.

Attempts were made to revive the child without success, it apparently having been choked by the contraction ring and loop of cord about its neck during delivery.

The placenta was retained and had to be removed manually. A hypodermic injection of an ergot preparation was given intramuscularly, and the uterus was well retracted. The puerperium was uneventful except for the development of cystitis, which cleared up with proper treatment.

890 Geary Street.

Unusual Foreign Body in the Bladder.—Dr. David P. McCune, Jr., McKeesport, Pa., writes: On April 14, 1921, Mr. C. R., while on a lark with some friends, became intoxicated and was put to bed in that condition. On awakening he found the urethra plugged with what proved to be chewing gum. Part of this he extracted with a tooth pick. The next day he had chills and fever, which continued at intervals until I saw him. He was then suffering from fever, frequency and tenesmus, and the urine was loaded with pus. The patient stated that his friends had told him of inserting the gum, and that he imagined some of it was still in his bladder. Cystoscopy confirmed this. Lying loosely on the floor of the bladder were two rounded putty-like bodies, each 3.5 cm. long by 5 cm. in diameter, and both U shaped. A marked cystitis was present. Both bodies were easily grasped and removed with a lithotrite without anesthesia. The cystitis cleared up in a few days.

New and Nonofficial Remedies

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR ADMISSION TO NEW AND NONOFFICIAL REMEDIES. A COPY OF THE RULES ON WHICH THE COUNCIL BASES ITS ACTION WILL BE SENT ON APPLICATION.

W. A. Puckner, Secretary.

SALIGENIN (See New and Nonofficial Remedies, 1921, p. 35).

Saligenin-Abbott.—A brand of saligenin, N. N. R.

Manufactured by The Abbott Laboratories, Chicago. No U. S. patent or trademark.

SANTYL (See New and Nonofficial Remedies, 1921, p. 270). The following dosage form has been accepted:

Santyl Capsules, 7 drops.

SILVER ARSPHENAMINE (See The Journal, May 7, 1921, p. 1312).

Silver-Salvarsan.—A brand of silver arsphenamine, N. N. R.

Manufactured by the H. A. Metz Laboratories, New York, N. Y. U. S. patent and U. S. trademark applied for. Licensed for interstate sale by the U. S. Treasury Department under the "act to regulate the sale of viruses, serums, toxins and analogous products" as conforming to the regulations for the control, sale and manufacture of silver arsphenamine.

Silver-Salvarsan 0.05 Gm. Ampules.
Silver-Salvarsan 0.1 Gm. Ampules.
Silver-Salvarsan 0.15 Gm. Ampules.
Silver-Salvarsan 0.2 Gm. Ampules.
Silver-Salvarsan 0.25 Gm. Ampules.
Silver-Salvarsan 0.3 Gm. Ampules.

Public Health Education.—Twenty years ago, as Prof. E. L. Collis has pointed out, public health medicine was practically confined to questions of sanitation, the compilation of vital statistics, regulations for healthy housing, and for the notification and isolation of specified disease. The old medicine concerned itself with disease; the new envisages prophylaxis, social therapeutics, and education—and the greatest of these is education.—*Lancet*, Dec. 25, 1920.

PROCEEDINGS OF THE BOSTON SESSION

MINUTES OF THE SEVENTY-SECOND ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT BOSTON, JUNE 6-10, 1921

HOUSE OF DELEGATES

First Meeting—Monday Morning, June 6

The House of Delegates met in the Boston Medical Library Building, Boston, and was called to order at 10 a. m. by the Speaker, Dr. Dwight H. Murray, Syracuse, N. Y.

Preliminary Report of the Committee on Credentials

The Chairman of the Committee on Credentials made a preliminary report for this committee, stating that the committee desired at this time to report progress, and that more than a quorum of delegates had qualified.

As there was no objection, the report was accepted.

Next in order was the roll call by the Secretary.

The Secretary stated that the registration of the delegates in attendance recorded the presence of more than a quorum.

A quorum being present, the Speaker announced that the House was constituted and ready for the transaction of business.

The next order of business was the presentation, correction, and adoption of the minutes of the Seventy-First Annual Session.

The Secretary stated that the minutes had been printed and circulated among the members of the House of Delegates, with the request for criticisms or corrections, but none had been received.

It was moved that the reading of the minutes of the Seventy-First Annual Session be dispensed with and approved as printed.

Seconded and carried.

Addresses of Executive Officers

Drs. Dwight H. Murray, Speaker; William C. Braisted, President, and Hubert Work, President-Elect, addressed the House. See addendum.

Reports of Officers

SECRETARY'S REPORT

Dr. A. R. Craig, secretary, presented the following report, which was referred to the Reference Committee on Reports of Officers:

To the Members of the House of Delegates of the American Medical Association:

The following report is submitted for 1920-1921. It covers a period of thirteen months, from April 1, 1920, to May 1, 1921.

MEMBERSHIP

The membership of the several constituent associations which is the membership of this Association, according to records in the Secretary's office on May 1, 1921, was 84,971. This is shown in the accompanying table which also indicates the increase and the decrease in the membership of each of the organizations.

FELLOWSHIP

The Fellowship of the Scientific Assembly of the American Medical Association on April 1, 1920, was 47,045. During the thirteen months up to May 1, 1921, 554 Fellows have died, 1,215 have resigned, 308 have been dropped from the roll as not eligible, 347 have been dropped for non-payment of Fellowship dues and the names of sixty-two have been removed from the roll on account of being reported "not found," making a total of 2,486 names to be deducted from the Fellowship roll. Of these discontinuances, 543 have been transferred from the Fellowship roster to the subscription list of THE JOURNAL. There have been added to the Fellowship roll 6,411 names including 865 names of those who are new Fellows of the Scientific Assembly by virtue of their having been recently commissioned as medical officers on active duty in the several medical military departments of the federal government. Of the names newly entered on the Fellowship roll, 1,311 were transferred from the subscription list of the Association's publications. The Fellowship of the Association on May 1, 1921, was 50,970, a net increase for the thirteen months covered by this report of 3,925.

DEATHS OF OFFICERS

Dr. Isadore Dyer, vice president, died of heart disease at his home in New Orleans on October 12, 1920. At its meeting, held in November, the Board of Trustees elected Dr. Rudolph Matas, New Orleans, vice president to fill the unexpired term.

Doctor Dyer at the time of his death was also a member of the Council on Medical Education and Hospitals. Surg.-Gen. Merritte W. Ireland was appointed, *ad interim*, by the President to fill the vacancy.

ORGANIZATION

The world war and conditions which have developed subsequently have affected the American Medical Association very much in the same manner as other organizations. Attention has been called to certain specific instances in my previous reports to the House of Delegates. The social and economic unrest still prevails, but there seems to be developing gradually a more stable condition of affairs.

The reaction from the altruistic and patriotic motives which controlled actions during the war has had its influence on the esteem in which some physicians hold the principles which have always been the basis of the policies of this Association. One of the dangers which merits the consideration of the House of Delegates is the apparent tendency on the part of certain physicians and a few component county societies to be dominated by commercial ideals rather than by the standards which the Association has adopted in formulating its Principles of Medical Ethics. The opening statement of these principles is: "A profession has for its prime object the service it can render to humanity. Reward or financial gain should be a subordinate consideration." This subject is presented to the House of Delegates because, as representatives of the organized medical profession, the members of this House are in a position to carry back to the constituent associations and through these to the component societies influences which shall correct these destructive tendencies.

During the war and since, a number of the component county societies have been inactive. In each instance, when the office of the Secretary of the Association has been informed that a county society was not holding meetings, the secretary of the constituent state or territorial association, of which the society was a branch, has been written to and urged to have steps taken to revive active work in such component societies. The state organizations have responded to these suggestions so that those branches, which were inactive, are again functioning in a more effective manner.

Again, in certain localities, there have been evidences of a lack of coordinated action and failure to appreciate the essential unity of all branches of the organization. While it is recognized that each constituent association is an entity and is competent to act for itself, it is essential that the component societies in each state shall actually be federated and shall cooperate with each other in carrying on the work of the organized profession, first within the county and then within the state. The same principle must hold in the relationship which exists between the constituent associations and the national body. The best work can be accomplished only when an undivided, loyal cooperation exists between all

branches of the organization, the county society acting for the physicians within its jurisdiction and transmitting to the constituent association of which it is a part memorials on subjects in which the cooperation of the other component societies of the state is desired, and the state associations in turn acting to coordinate the work of its component societies and transmitting to the House of Delegates of the American Medical Association memorials presenting subjects for the consideration of this House of Delegates. Such procedure would in no wise interfere with this House of Delegates initiating action on a motion submitted directly by one of its members.

One of the most effective measures for carrying out the purposes of the organized medical profession is the education both of its members and of the lay public regarding questions relating to the health and physical welfare of the community. When action has been taken without first gaining the support of public opinion in the community, it is not unusual for failure to result. Occasionally either branches of the organization or their officers have endeavored to put into effect measures which, to the uninformed layman, seem to be primarily in the interests of practitioners of medicine. This has permitted those whose personal interests are affected to make a specious claim to the general public that they are being persecuted by members of the medical profession. This cry of persecution is an effective appeal, especially when it is presented in the form in which it is usually made by those who in fact are exploiting the people. If the members of this House of Delegates will urge the organizations which they represent to be active in informing the influential citizens of their several communities regarding matters which affect the preservation of health and the treatment of disease, the result undoubtedly will be that the people themselves will appreciate more fully the value of laws regulating health conditions and controlling the practice of the healing art so that the public rather than the medical profession alone will demand these laws and will require their enforcement.

ORGANIZATION OF CONSTITUENT ASSOCIATIONS

Constituent Association of	No. Counties in State	No. Component Societies in State Assn.	Number Counties in State Not Organized 1920	Number Counties in State Not Organized 1921	No. Physicians in State (7th Ed. Directory)	Number Members of State Association 1920	Number Members of State Association 1921	No. A. M. A. Fellows in State	No. Subscribers to Journal in State*
Alabama	67	67	.....	.....	2,405	1,728	1,663	500	353
Arizona	14	11	3	3	380	213	245	165	96
Arkansas	75	63	12	12	2,450	1,042	1,194	454	257
California	58	42	14	16	6,706	3,311	3,251	2,272	1,720
Colorado	63	36	24	27	1,817	950	995	598	391
Connecticut	8	8	.....	.....	1,729	1,054	1,019	658	445
Delaware	3	3	.....	.....	262	123	129	91	74
Dist. Columbia	.....	.....	.....	.....	1,689	567	587	575	303
Florida	54	31	22	23	1,291	572	577	305	296
Georgia	154	101	62	53	3,406	1,188	1,225	616	519
Idaho	44	26	25	18	553	184	250	128	135
Illinois	102	100	1	2	10,651	7,049	7,085	4,526	2,319
Indiana	92	90	1	2	4,446	2,231	2,470	1,257	674
Iowa	99	99	.....	.....	3,536	2,347	2,377	1,383	681
Kansas	105	67	38	38	2,550	1,760	1,639	864	414
Kentucky	120	114	2	6	3,223	2,353	2,142	730	373
Louisiana	64	41	24	23	2,601	1,353	1,124	653	316
Maine	16	15	1	1	1,105	719	667	324	192
Maryland[1]	23	21	2	2	2,364	1,143	1,274	843	701
Massachusetts[2]	14	14	.....	.....	5,959	3,840	3,798	2,435	1,387
Michigan	83	81	2	2	4,561	2,609	2,984	1,673	843
Minnesota	86	82	3	4	2,628	1,335	1,452	1,203	677
Mississippi	81	79	5	2	1,761	499	482	379	225
Missouri[3]	114	108	11	6	5,921	3,402	3,383	1,554	1,007
Montana	51	39	33	32	680	373	391	194	191
Nebraska	93	64	28	29	1,565	1,116	1,068	671	465
Nevada	17	3	13	14	147	73	91	55	35
New Hampshire	10	10	.....	.....	641	526	520	308	88
New Jersey	21	21	.....	.....	3,280	1,745	1,995	1,400	774
New Mexico	29	14	16	15	579	199	286	162	105
New York	62	61	.....	1	16,284	9,110	8,916	5,441	3,475
North Carolina	100	82	14	18	2,236	1,377	1,626	663	471
North Dakota	53	51	1	2	556	433	455	265	116
Ohio	88	87	1	1	8,092	4,670	4,558	2,592	1,409
Oklahoma	77	66	10	11	2,622	1,628	1,374	704	343
Oregon	36	34	3	2	1,145	707	616	296	327
Pennsylvania[4]	67	62	4	4	11,240	6,622	7,304	4,601	2,220
Rhode Island[2]	5	5	.....	.....	778	400	388	286	148
South Carolina	46	41	5	5	1,452	640	632	310	274
South Dakota[2]	68	10	8	8	658	385	398	247	174
Tennessee	96	67	29	29	3,228	1,481	1,743	721	460
Texas	248	179	70	69	6,305	5,102	3,626	1,816	809
Utah	29	5	25	24	466	286	298	183	135
Vermont	14	12	2	2	594	406	379	168	96
Virginia[5]	100	65	41	35	2,545	1,735	1,908	842	446
Washington	39	19	20	20	1,797	1,056	967	536	442
West Virginia	55	41	12	14	1,717	1,078	1,235	512	432
Wisconsin	71	70	.....	1	2,750	1,904	1,949	1,125	705
Wyoming	22	10	17	12	267	92	139	62	86
Misc., Foreign, Govt. subs for Army, Navy & U. S. P. H. S.	-	-	-	-	-	-	-	139	2,956
Canal Zone	.....	.....	.....	.....	.....	101	74	21	24
Hawaii	5	.....	.....	.....	.....	72	81	38	48
Porto Rico	7	.....	.....	.....	.....	126	118	24	39
Philippine Isl.	.....	.....	.....	.....	.....	144	156	56	88
Totals	3,048	2,368	479	388	145,608	83,338	84,971	48,318	31,765
Commissioned Officers * and Honorary Fellows								2,652	
								50,970	

* Not including Fellows of American Medical Association.

Note.—The number of members of the different associations stated in this table is in accord with the membership of the several associations as they were reported to the Secretary on April 1, 1921.

The lack of an effective uniform system for reporting the membership of the state associations accounts for whatever discrepancies this table shows and detracts from the value of the statement.

Component societies are those societies which compose the state association. A component society may include one county or more.

1. The state of Maryland has 23 counties and the city of Baltimore; Missouri has 114 counties and the city of St. Louis.

2. These state associations are divided into district societies, and these are listed in the table as component societies. Some of these districts are smaller and some larger than the county, the county lines being ignored.

3. Provision is made for the physicians in each of these counties to join the component society in an adjoining county.

4. Virginia has recently adopted the plan of organization and is now establishing component county medical societies.

5. This figure includes the Medical Corps of the Army, the Navy and the Public Health Service.

MEMORIALS AND OPINIONS

The By-Laws of the Association provide that no memorial, resolution or opinion of any character whatever shall be issued in the name of the American Medical Association unless it has been approved by the House of Delegates. This places on the House a grave responsibility in formulating the policies of the Association. From time to time, moot scientific questions have been brought to the attention of the House of Delegates. It is a serious matter to commit the Association on such questions when the problems have to be determined in the time available during an annual session; and under the present arrangements there is no standing committee to which the House of Delegates may refer such questions for deliberation and a report recommending action. If the House deems it wise, provision might be made so as to make it the function of one of the existing Councils—the Council on Scientific Assembly is suggested because of its relationship to the Scientific Assembly—to investigate such of these scientific questions as the House of Delegates may refer to it, and to report back recommendations for action. The By-Laws empower a Council to appoint special committees subject to the approval of the Board of Trustees for purposes falling within the jurisdiction of the Council. Consequently, the Council which has this subject within its jurisdiction is in a position to create a special committee or a bureau to carry out the necessary inquiries or studies. As suggested, such a bureau or committee, sitting with the Council on Scientific Assembly either at the annual session or in the *interim*, could give careful consideration to questions involving a scientific opinion so that the House of Delegates might be thoroughly informed before it takes action.

APPLICATION OF ALASKA TERRITORIAL MEDICAL ASSOCIATION

The application of the Alaska Territorial Medical Association to be accepted as a constituent association of the American Medical Association is herewith presented to the House of Delegates.

REAPPORTIONMENT

The attention of the House is called to Section 3, Chapter I, page 6, of the By-Laws. This is the year for reapportioning the delegates of the constituent associations. The By-Laws require that the House shall appoint a committee of five on reapportionment, of which the speaker and secretary shall be members. It is suggested that the appointment be made early in the session so that the committee may report to the House as promptly as possible.

Additional matters in which the office of the Secretary has been active are reported to the House of Delegates through other channels.

Respectfully submitted,

ALEXANDER R. CRAIG, Secretary.

REPORT OF THE BOARD OF TRUSTEES

Dr. A. J. Mitchell, Chairman, presented the following report, which was referred to the Reference Committee on Reports of Officers.

To the Members of the House of Delegates of the American Medical Association:

The year 1920 will be referred to in the future as the year of high prices, of abnormal profits in nearly every line of business, and of an hysterical condition in which all economic laws were treated as though they were nonexistent. In our publication department we were affected by the abnormally high scale of wages and the high cost of paper and of all other materials that go into the conduct of a printing establishment. On the other hand, we were faced with the fact that while the cost of every article purchased was steadily increasing, that which we had to sell—THE JOURNAL—was remaining stationary so far as the Fellowship and subscription departments were concerned.

In our report last year it was stated that "the steadily increasing cost of production is likely to cause serious concern if it continues much longer," specific reference being made to the increased cost of paper during the year 1919 and to the fact that wages in the printing trade had been advancing. It was then added:

> While there is no immediate cause for anxiety, it is well for us to realise that we must be prepared for whatever the future may have in store. It may be necessary either to increase the subscription price of THE JOURNAL—say $1 a year—or to reduce its size. However, this is for the future. Your attention is called to these matters that you may know the conditions that have developed and which are developing.

You know what transpired, viz., it finally became necessary either that THE JOURNAL should be published at a serious loss or that there should be an increase in the subscription and Fellowship dues. As you have before you the minutes of the special session of the House of Delegates called last November, to raise the annual dues, it is unnecessary to do more than refer you to these minutes.

An analysis of the conditions of the year shows that during the first two months—that is, before the first increase in the cost of labor and paper during the year (1920) went into effect—the profits on the publication were quite satisfactory—this not only because of the increase in circulation but also, and especially, on account of the unusually satisfactory returns from the Advertising Department. To a less extent the same applies to the following four months, when the cost of paper took a second upward turn. From that time on, to about August, when the labor scale made another large increase and the price of paper again advanced, we were just about running even. From August on we were operating at a loss. However, the profits of the first half of the year were sufficient to more than carry the loss of the latter half, so that, as will be noticed by the Auditor's Report, we were able to show a net gain for the year of a little over $30,000.

The present outlook as to the cost of production is uncertain. In February there was a decrease in the cost of paper stock, approximately equivalent to the last increase—in September, 1920. But thus far the high scale for labor continues.

ADVERTISING DEPARTMENT

For the fairly satisfactory financial outcome for the year, considerable credit must be given to the Advertising Department. As you probably are aware, until toward the end of the year 1920 there was a very large amount of advertising of all descriptions in all kinds of periodicals. The reason is well known—the income tax. Toward the end of the year, and still more since the first of the present year, there has been a most decided falling off—the excess advertising to which we refer has vanished. These comments apply to periodicals in general but apparently not to THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION for thus far our advertising is keeping up. The enormous circulation of THE JOURNAL and the standard of the men whom it reaches make it an advertising medium of great value to those who want to reach the leading members of our profession. It is needless to say that our advertising standard is still kept up, and, if anything, the advertising committee is more exacting.

It may be of interest to note that the receipts from dues and subscriptions exceeded those from advertising until the year 1919, when this order was reversed. In 1919 the receipts from advertising were $395,598; whereas the receipts from dues and subscriptions were $357,684. Last year the receipts from advertising were $512,765, and from dues and subscriptions $386,825.

SUBSCRIPTION DEPARTMENT

In the addenda to this report will be found, in tabular form, the facts regarding circulation. The number of names on the mailing list—i. e., bona fide subscribers, including Fellows—on Jan. 1, 1920, was 74,919; on Jan. 1, 1921, 78,560—a gain for the year of 3,641. The total number of copies printed during 1920 was 4,110,112—349,761 more than in 1919. The weekly average was 79,040—an increase in the average of 6,726 over 1919. This must be regarded as satisfactory. Since the first of January of this current year there has not been an issue printed of less than 80,000 copies.

SPANISH EDITION

The circulation of the Spanish Edition of THE JOURNAL is slowly increasing; the number of bona fide paid subscribers on January 1 this year was 3,611, as against 2,908 a year ago. The circulation covers pretty nearly all Spanish-speaking countries; naturally, the largest circulation is in Mexico—approximately 600. Cuba comes next with 500 copies; then Argentina, 403; Brazil, 312; Philippine Islands, 254; Spain, 236, and Chile, 232. The rest is scattered in the various Spanish-speaking countries.

The monetary exchange condition is a serious handicap not only in securing remittances but also in promoting circulation. This accounts in part for the loss, which amounts to about $9,000. We may naturally expect that conditions will improve, otherwise the Board would have to consider whether the good to be obtained is worth the cost. There is no doubt that the publication of this journal is doing much good: it is bringing the Association, as well as American medicine, prominently and most favorably to the attention of the best physicians in the Pan-American countries, Mexico, the Philippines, etc.; it is surely developing a friendly spirit; it is bringing to this country, as students and for postgraduate work, many who otherwise would be going to European countries. It will be remembered that the Rockefeller Foundation bears half the loss.

SPECIAL JOURNALS

All our special journals are doing well so far as circulation is concerned; there was a financial loss, however, during the year on all except the ARCHIVES OF INTERNAL MEDICINE.

The circulation of the AMERICAN JOURNAL OF DISEASES OF CHILDREN is steadily increasing; it numbered 2,911 on the first of this year, as compared with 2,531 on Jan. 1, 1920.

The circulation of the ARCHIVES OF INTERNAL MEDICINE is improving, although the increase last year was only 198, making the total circulation on the first of this year 2,791.

The circulation of the ARCHIVES OF NEUROLOGY AND PSYCHIATRY was 1,248 on Jan. 1, 1921, as compared with 1,158 the preceding year—not as large as that of either of the above mentioned journals, as the specialty it represents is limited in number. However, the circulation is steadily increasing.

The ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY has now been published by the Association one year and, we are informed, is highly appreciated by dermatologists of the country. Its circulation, too, naturally is limited—1,051 on January 1. It, too, is steadily growing.

The publication of the ARCHIVES OF SURGERY was begun in July, as a bimonthly, and numbers were issued in July, September and November. The circulation during the year 1920 reached 3,273.

As we have stated, there were losses on all these special publications, with the exception of the ARCHIVES OF INTERNAL MEDICINE. These losses are accounted for by the radical increase in the cost of production in every branch of the printing trade, and especially in the price of paper. We did not have to contend with the unstabilized paper market so far as paper for THE JOURNAL and the Spanish Edition was concerned: with paper for our special journals it was different; it was not possible to contract for the year's supply

of this paper, hence we were compelled to meet the market conditions as they developed. The result was that we had to pay whatever the market demanded. We are better prepared for the future, since we have been able to make a contract similar to that for THE JOURNAL, the terms of which will give us paper for these special journals 50 per cent. less then it cost us last year.

Under the conditions that had developed, the Board felt it wise to discontinue the combination rates on the special journals, and in some instances to increase the price. Naturally, therefore, a better showing may be looked for this year. For instance: 1,863 of the subscribers to the ARCHIVES OF INTERNAL MEDICINE by clubbing paid only $4 a year; hereafter they will pay the regular $5 rate. The 2,187 subscribers to the AMERICAN JOURNAL OF DISEASES OF CHILDREN who were paying the combination rate of $3 will this year pay $4. The price of the ARCHIVES OF NEUROLOGY AND PSYCHIATRY and of the ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY has been increased from $5 to $6, and since many of the subscribers to these periodicals were paying only $4 under the combination rate, there will be quite an increase in the receipts under the new order. It is believed that these increases will make these journals at least self-supporting. However, it is well to bear in mind that even if it should be necessary to increase the subscription price of these journals, say, another $1 or $2, they would still be far cheaper than similar special journals published elsewhere. May we again emphasize that one of the great opportunities for the advancement of scientific medicine in the United States is the encouragement of these special journals? While we should not publish them at a loss, they should be issued at as near cost as possible. The Association, with its splendid printing facilities and its direct contact with the profession of the whole country, is able to do this work better and cheaper than it is possible for the men interested in these specialties to have their journals printed and published elsewhere, and to promote their circulation at a nominal expense. When our building is completed our printing plant will be capable of taking on more of these publications.

QUARTERLY CUMULATIVE MEDICAL INDEX

Related to the special journals, and published ultimately for the same reason—that is, for the advancement of scientific medicine in the United States—is the Quarterly Cumulative Medical Index. This index is heartily appreciated by research workers and by those physicians who are attempting to keep up with medical progress; it is regarded by such men as one of the most helpful publications on medical literature in any language. The circulation is steadily creeping up: at the end of the year 1920 there were 1,045 bona fide subscribers, as against 738 the preceding year. Incidentally, the increase during the first part of the current year is greater than that during the same period last year.

COOPERATIVE MEDICAL ADVERTISING BUREAU

The Bureau closed its seventh year, Dec. 1, 1920. The financial reports show it has been increasingly helpful to the state journals each year. During 1920, it did a gross total business of 65,976.91; and after paying all expenses distributed to the twenty-eight state journals, on a pro rata basis, excess earnings of $3,500. This amount was in the nature of a bonus, as each journal had been paid its earnings regularly each month, as they came due.

In addition to securing general advertising for the state journals, the Cooperative Bureau, as its name implies, helps to coordinate the work of these publications. It provides the publishers with information about general advertisers, keeps them informed about credits and business conditions, answers inquiries regarding acceptable advertising, and in other ways renders the individual publishers a real service, without charge.

Prior to the organization of the Bureau, the advantages of the state journals as advertising mediums were imperfectly understood. But the Bureau has continuously advertised them until general advertisers have begun to appreciate their worth and are now including these journals in their lists of publicity mediums. This service feature is appreciated by both publishers and advertisers. The latter have come to understand that this chain of twenty-eight state journals comprises a list of reliable, standardized publications, which can be handled through the Bureau in one order. This method is a distinct advantage to both advertisers and publishers. The state journal editors have shown increasing confidence in the Bureau, as it has demonstrated its ability to secure advertising accounts which individual publishers could not obtain. All of the state-owned medical journals, except the Illinois, are now represented by the Bureau.

BUILDING

In its report to you two years ago, at Atlantic City, the Board of Trustees stated that the increased activities were beginning to crowd the Association headquarters, especially in the printing department; and that it was proposed to tear down the old building and extend the main one to take in this space. This, it was stated, would give a steel and concrete structure 100 by 120 feet, six stories and a high basement, of sufficient strength to make possible the addition of two, three or even four more stories if future needs require additional room. Other facts also were given at that time regarding the proposition. Later the architects were authorized to draw preliminary plans and to make estimate of the cost. This was done and presented to the Board in October. The tentative plans were accepted, and the architects were authorized to proceed to make complete plans and detailed specifications. These detailed plans and specifications were presented to and approved by the Board at its meeting in February, 1920. The estimated cost was $280,000. The architects were then instructed to call for bids. In due time the bids came in, the lowest of which was $420,000 and it had strings to it. The Board therefore decided to postpone building. As more room had become absolutely necessary, the lease on three floors of the old building was terminated, and this space is now being used. But this is a makeshift arrangement and should be terminated as soon as building conditions warrant.

Prices of building material seem to be coming down, and we are informed that the cost today would quite probably come very near to the architects' original estimate. The outlook certainly is more promising than in the past, and we hope it may soon be such that the Board will feel justified in authorizing construction of the building. From the present outlook there will be sufficient funds to complete the building without going into debt; this would not have been the case last year. There is one serious feature: the present depreciated prices of securities. While all of the Association's bonds are high-class, few will bring the original cost. Even the government bonds, in which the Association has invested $175,000, probably would have to be sold at a sacrifice. Of course your Board of Trustees will give careful consideration to the matter before finally deciding to go ahead. When this building is completed it will be possible for the Association to undertake additional work in the interest of the profession and public health which your Board has not heretofore felt inclined to recommend on account of the expense.

COMMITTEE ON REHABILITATION OF EX-SERVICE MEN

Early in March the Committee on Hospitalization of ex-service men of the American Legion, through Dr. Billings, requested a conference with representatives of the American Medical Association attending the Congress on Medical Education and Hospitals, Licensure and Public Health, then being held in Chicago, with the object of securing cooperation of the American Medical Association looking to the improvement of the unsatisfactory condition of affairs in the hospitalization and care of disabled ex-service men. The conference was held in Chicago on March 7, at which were present: Gen. Abel Davis, Major A. A. Sprague and Dr. Thomas B. V Keene, members of the National Committee on Hospitalization and Rehabilitation of the American Legion; Surgeon-General Cumming and Drs. Lavender and McDill, of the United States Public Health Service; Dr. Thomas W. Salmon, representing the National Committee for Mental Hygiene, and Dr. Charles J. Hatfield, representing the National Tuberculosis Association. The American Medical Association was represented by President-Elect Work; Drs. A. R. Mitchell, W. T. Sarles and Frank Billings, representing the Board of

Trustees; Drs. A. R. Craig, George H. Simmons, E. E. Irons, J. N. McCormack, Ray Lyman Wilbur and others. After the conference the matter was taken up by the Executive Committee of the Board of Trustees, which at that time was holding its regular monthly meeting in Chicago. It called into conference President Braisted, President-Elect Work, Surgeon-General Ireland, Dr. J. N. McCormack, Dr. George H. Simmons and Dr. A. R. Craig. As a result of this conference, President Braisted appointed the following committee to act in the matter: Dr. Frank Billings (chairman), Dr. Hubert Work and Dr. J. N. McCormack. It was the understanding that this committee should go to Washington, investigate and advise with the committees of the American Legion and others. The matter was submitted to the full Board by vote and approved. The committee then proceeded to Washington, accompanied, at its request, by the editor and general manager, who worked with the committee. On March 17 and 18 the committee held conferences in Washington with the Surgeon-General of the Public Health Service, with officers of the Bureau of War Risk Insurance and with others, making a preliminary and general survey of the whole subject.

Meantime, Dr. Billings had been selected by the Secretary of the Treasury as a member of a board of consultants on hospitalization of ex-service men. It was, therefore, decided by the committee that inasmuch as Dr. Billings was a member of an official government committee, he could represent the committee of the American Medical Association unofficially but effectively. Hence, while the Association's committee has not been discharged, it has ceased active work awaiting further developments.

A report of the result of the activities of our committee and other committees was published in THE JOURNAL, April 16, p. 1112.

DIRECTORY

The Seventh Edition of the Directory was issued in April. The delay in its publication was the result, in part, of the difficulty in securing clerical assistants in the early stages of the revision and, in part also, of the unusual number of changes—removals. The Directory Department estimates that the removals amounted to approximately 30 per cent. This not only added to the amount of work, but also took more time, as it was difficult to locate many who had moved. The unusual number of removals undoubtedly was the result of the war; evidently many physicians who gave up their practice and went into the army made use of the opportunity to change their locations on returning to civil practice.

The advance orders for this edition nearly double those for the former edition—4,200 for the Sixth, as compared with approximately 8,000 for the Seventh. Nine thousand copies were printed, as compared with 6,000 copies of the previous edition.

We can make no statement at the time this is written regarding the financial side.

THE PROPAGANDA DEPARTMENT

The Propaganda Department continues to be a clearing house for information relative to the nostrum evil and quackery. Many of you no doubt imagine that the only information disseminated by this department is that which appears in the pages of THE JOURNAL devoted to it. Yet, as a matter of fact, this is but a small part of its work. Letters of inquiry that run into the thousands are annually received and answered by the department. About as many of these inquiries come from the public as from members of our profession. There is an increasing number of letters from students in schools and colleges, owing to the fact that the work of the Propaganda Department has come to be recognized to an extent that it is referred to in school and college textbooks. Moreover, teachers of home economics, civic biology, hygiene, etc., devote a certain amount of time to the study of the nostrum evil, and the Association's work along this line is, naturally, brought out. The past year has brought a large number of letters of inquiry relative to nostrums of the alcoholic type and also a large number from those who are interested in the problem of medical advertising copy in newspapers and magazines. Advertising managers and agencies, secretaries of advertising clubs, and especially officials of the Associated Advertising Clubs of the World, are in regular correspondence with the department. The influence that the department is exerting in the interest of truthfulness and honesty in medical matters as they affect the public directly will never be generally known; but to those who are familiar with the facts, this feature of the department's work is especially encouraging and impressive. An active demand continues for the pamphlets, books, educational posters and stereopticon slides prepared and issued by the department. New editions of the pamphlets prepared by the department are continually being issued. The same is true of the educational posters on the nostrum evil; these are reprinted from time to time with modification and additions that bring them down to date, while a certain number of new posters are prepared each year. The new edition of "Nostrums and Quackery" has, through shortage of help and the urgency of other work, been delayed, but it is now practically ready for distribution.

COUNCIL ON PHARMACY AND CHEMISTRY

The Council on Pharmacy and Chemistry is continuing the splendid work which has put the profession of this country far ahead of that of any other, in that it is protected against misrepresentation and commercialism inherent in the exploitation of proprietary medicines. The fact that this country is better off in this regard than others is obvious to those who will compare the advertisements of medical products in even the highest-class medical journals of Europe, including Great Britain, with those of this country. While there are still many medical journals in this country that do not follow the Council, with two or three exceptions its influence for good on these journals is apparent. Excluding that mentioned above, all the state journals refuse to carry medicinal products not accepted by the Council. One sometimes wonders whether our profession really appreciates what this body of scientific men has done, and is still doing, for the medical profession and the public, and for the advancement of scientific and rational therapy. It is well known that a certain percentage do appreciate this, but it is feared that the percentage is not as large as it should, and would, be if physicians were more familiar with this work. That much has been accomplished will be appreciated if one compares conditions of twenty years ago and now.

The problems of the Council today are radically different from those which existed when it was first organized. In the early days they were, to a large extent, concerned with the secret and semisecret complex mixtures of simple drugs exploited to our profession under fanciful names and with extravagant claims. These have been forced into obscurity, and physicians who still prescribe them are reticent about it. However, in the place of these ancient nostrums we now have biologic products, and biologic therapy is tending toward conditions just as serious as those which resulted from the exploitation of the shotgun drug mixtures; and they are more dangerous. What promised to be a blessing seems to be proving a menace. In any event we must be on our guard against the present commercial exploitation of this form of therapy. The point is, these preparations are being exploited through our profession directly, and to the public indirectly, for financial gain rather than in the interest of scientific medicine and for the good of the public. Another development in therapeutics somewhat related to the field of biologic therapy is the intravenous use not only of biologic products but also of drugs and chemicals—a method of treatment which has numerous dangers. These newer problems which are engaging the attention of the Council should also concern every physician.

New and Nonofficial Remedies is the official publication of the Council, issued annually. This book contains a list of the proprietary products accepted by the Council, and physicians may protect themselves by having this book available for reference when they desire information on unofficial and proprietary preparations.

Useful Drugs and the Epitome of the Pharmacopeia also are published under the supervision of the Council. They are used in quantities by medical students and by teachers in medical schools.

The Council has a Committee on Therapeutic Research, for which the Trustees make an appropriation each year. This

appropriation is used for investigations and laboratory research into the actions of drugs and pharmaceutical products. The results are published in various medical journals and are included each year in a single publication, "A. M. A. Therapeutic Research Reports."

Detailed reports of the activities of the Council on Medical Education and Hospitals, the Council on Health and Public Instruction and the Judicial Council will be submitted directly by these bodies; hence it is not necessary to refer here to the work of the Association carried on by these councils.

As an addenda we submit, in addition to the facts covering the circulation of THE JOURNAL, etc., the Treasurer's statement, and the official and complete Auditor's report.

COMMITTEE ON SCIENTIFIC RESEARCH

As the Board previously reported to you, a Committee on Scientific Research was constituted in 1900 and continued until 1914 when, in the curtailment of expenses, it was found necessary to discontinue making an annual appropriation for its work. In 1918 the Board felt justified in reestablishing this grant, and appropriated $1,200; in 1919 a similar appropriation was made; in 1920, $1,500; and this year, $1,500. The object of these grants, of course, is to further meritorious research in subjects relating to scientific medicine and of practical interest to the medical profession, special effort being made to aid such work as otherwise might not be carried on to completion. We are of the firm opinion that this expenditure is well worth while. Before long it is hoped to publish a complete list of all the grants since the first appropriation, made in 1903.

Respectfully submitted,

A. R. MITCHELL, Chairman,
FRANK BILLINGS, Secretary,
D. CHESTER BROWN,
OSCAR DOWLING,
THOMAS McDAVITT,
WENDELL C. PHILLIPS,
CHARLES W. RICHARDSON,
W. T. SABLES,
WALTER T. WILLIAMSON.

ADDENDA TO TRUSTEES' REPORT

SUBSCRIPTION DEPARTMENT

The regular weekly issue of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, from Jan. 1, 1920, to Dec. 31, 1920, inclusive (52 issues), was as follows:

January 3	76,250		July 3	78,080	
January 10	76,379		July 10	78,036	
January 17	75,471		July 17	77,667	
January 24	75,686		July 24	78,050	
January 31	75,577		July 31	78,226	
		379,363			390,059
February 7	75,976		August 7	79,047	
February 14	76,135		August 14	79,400	
February 21	76,042		August 21	79,196	
February 28	76,531		August 28	79,512	
		304,684			317,155
March 6	76,003		September 4	79,675	
March 13	76,326		September 11	79,412	
March 20	80,548		September 18	79,717	
March 27	76,494		September 25	80,092	
		309,371			318,896
			October 2	80,003	
April 3	76,650		October 9	79,954	
April 10	76,518		October 16	80,188	
April 17	76,470		October 23	80,433	
April 24	76,664		October 30	80,655	
		306,302			401,233
May 1	76,636				
May 8	77,826		November 6	80,166	
May 15	81,798		November 13	80,679	
May 22	77,382		November 20	80,878	
May 29	77,638		November 27	94,538	
		391,280			336,261
June 5	78,159		December 4	95,530	
June 12	78,004		December 11	85,226	
June 19	77,875		December 18	81,113	
June 26	78,245		December 25	81,356	
		312,283			343,225
Total					**4,110,112**
Weekly average					**79,040**

PERCENTAGE OF PHYSICIANS RECEIVING THE JOURNAL

This table gives the number of physicians (based on the sixth edition of the American Medical Directory) in the United States, the number receiving THE JOURNAL, and the approximate percentage in each state. Copies to physicians in the United States Army, United States Navy, Public Health Service, etc., are not included.

State	Number Receiving JOURNAL	Physicians in State 6th A. M. Dir.	Approx. Percentage 6th A. M. Dir.
Alabama	854	2,530	34
Arizona	260	333	78
Arkansas	710	2,587	27
California	3,829	5,929	65
Colorado	964	1,713	57
Connecticut	1,095	1,701	64
Delaware	124	264	47
District of Columbia	654	1,237	53
Florida	573	1,296	44
Georgia	1,126	3,442	33
Idaho	244	458	53
Illinois	6,688	11,095	60
Indiana	1,933	4,765	40
Iowa	2,013	4,004	50
Kansas	1,261	2,668	47
Kentucky	1,075	3,483	31
Louisiana	1,166	2,060	56
Maine	496	1,179	42
Maryland	1,452	2,268	64
Massachusetts	3,740	5,926	63
Michigan	2,443	4,598	53
Minnesota	1,824	2,566	71
Mississippi	643	1,975	33
Missouri	2,473	6,063	41
Montana	356	661	54
Nebraska	1,103	1,960	57
Nevada	93	159	59
New Hampshire	348	666	52
New Jersey	1,184	3,153	69
New Mexico	250	456	55
New York	8,628	15,877	54
North Carolina	932	2,257	41
North Dakota	379	604	63
Ohio	3,866	8,089	48
Oklahoma	1,003	2,672	37
Oregon	597	1,157	52
Pennsylvania	6,635	11,495	58
Rhode Island	438	752	58
South Carolina	583	1,433	41
South Dakota	424	695	61
Tennessee	1,086	3,481	31
Texas	2,637	6,246	42
Utah	305	488	62
Vermont	254	653	38
Virginia	1,066	2,552	42
Washington	1,008	1,698	54
West Virginia	905	1,759	52
Wisconsin	1,759	2,817	62
Wyoming	162	254	63

The following table shows the number of Fellows and subscribers on THE JOURNAL mailing list, for each year, commencing with 1900, omitting advertisers, exchanges, libraries, colleges, etc.:

Year	Fellows	Subscribers
January 1st, 1900	8,445	4,633
January 1st, 1901	9,841	8,339
January 1st, 1902	11,107	10,795
January 1st, 1903	12,553	12,378
January 1st, 1904	13,899	14,674
January 1st, 1905	17,570	15,698
January 1st, 1906	20,826	17,469
January 1st, 1907	26,235	20,166
January 1st, 1908	29,382	20,880
January 1st, 1909	31,999	18,983
January 1st, 1910	33,032	19,832
January 1st, 1911	33,540	20,504
January 1st, 1912	33,250	21,620
January 1st, 1913	36,082	19,863
January 1st, 1914	39,518	19,751
January 1st, 1915	41,254	20,430
January 1st, 1916	41,938	22,921
January 1st, 1917	42,744	22,156
January 1st, 1918	43,430	23,117
January 1st, 1919	42,366	34,687
January 1st, 1920	44,340	30,032
January 1st, 1921	46,669	31,347

The total number of transfers to Fellowship was 3,914 in 1920.

The total number of copies printed during the past year (4,110,112) was 349,761 more than were printed the previous year.

TREASURER'S REPORT

Report of the Treasurer of the American Medical Association for the year ended December 31, 1920

ASSOCIATION RESERVE FUND

Reserve Fund as at December 31, 1919		$283,186.42
Interest—Bonds	$12,967.72	
Interest—Uninvested	300.27	
		12,367.99
Reserve Fund as at December 31, 1920		$295,554.41

TREASURER'S GENERAL ACCOUNT

Balance as at December 31, 1920	$ 265.34

DAVIS MEMORIAL FUND

Balance as at December 31, 1919		$ 3,762.16
Interest		87.19
		$ 3,849.35
Disbursements:		
Invested in U. S. 4¼'s Gov. Bonds	$ 3,701.60	
Accrued Interest	6.65	
Northern Trust Co.—Rebate	0.47	
Care of Bonds	1.84	
	$	3,710.56
Balance uninvested as at December 31, 1920		138.79

SUMMARY AS AT DECEMBER 31, 1920

Invested in Bonds	$ 3,701.60	
Cash Balance	138.79	
	$	3,840.39

AUDITOR'S REPORT

CHICAGO, January 18, 1921.

To the Board of Trustees,
American Medical Association, Chicago, Illinois.

Dear Sirs:

In accordance with your instructions, we have audited the accounts of the American Medical Association for the year ended December 31, 1920, and now submit our report thereon.

SURPLUS ACCOUNT

The surplus at the beginning of the year amounted to $456,839.39, and the surplus at the end of the year amounted to $489,694.97, an increase of $32,855.58. This increase is spread over the assets and liabilities as follows:

Increase in Current and Working Assets		$ 5,612.55
Increase in Prepaid Expenses		55,027.60
		$ 60,640.15
Less:		
Decrease in Fixed Assets	$11,628.56	
Increase in Accounts Payable	13,905.70	
Increase in Advance Payments on Publications	2,250.31	
		$ 27,784.57
Net Increase in Surplus, as above		$ 32,855 58

FINANCIAL POSITION

The financial position of the Association as at December 31, 1920, is shown in the following statement:

BALANCE SHEET AS AT DEC. 31, 1920

ASSETS:			
Property and Equipment at Cost, less Depreciation:			
Real Estate and Buildings			$201,534.40
Machinery			43,279.97
Type and Metals			9,902.51
Furniture and Equipment			15,730.93
Chemical Laboratory			1,537.43
Library			736.15
			$270,221.39
Reserve Fund Investment			295,554.41
Current and Working Assets:			
Inventory of Materials, Supplies and Work in Process		$ 99,280.74	
Accounts Receivable:			
Advertising	$54,244.80		
Cooperative Medical Advertising Bureau	7,360.48		
Reprints	2,577.63		
Miscellaneous	13,423.10		
	$77,606.01		
Notes Receivable	1,284.03		
Cash in Bank and on Hand	16,086.99		
		$194,857.77	
Prepaid Expenses:			
Insurance		$ 982.78	
Session 1921		1,327.82	
Directory, Seventh Edition		$3,621.50	
		$ 55,932.10	
Total			$816,565.67
LIABILITIES:			
Accounts Payable:			
Cooperative Medical Advertising Bureau		$ 5,527.25	
Sundry		15,227.55	
		$ 20,754.80	
Advance Payments on Publications			10,561.49
Association Reserve Fund			295,554.41
Surplus			489,694.97
Total			$816,565.67

The balance sheet submitted, in our opinion, correctly reflects the financial position of the Association as at December 31, 1920, subject to provision for accrued interest, taxes and "Journal" subscriptions paid in advance, less subscriptions and memberships due and unpaid.

We examined the securities representing the investment of the Association Reserve Fund, and found them in order.

We verified the cash on hand by actual count and the cash in bank by certificates obtained from the Association's bankers. The following is a statement of the cash balances:

Continental and Commercial National Bank	$ 15,270.66
First Trust and Savings Bank (Treasurer's Account)	265.34
Cash on Hand	400.99
Cashier's Fund	150.00
Total	$ 16,086.99

OPERATIONS

The operations of the Association for the year ended December 31, 1920, are shown in the following statements:

INCOME AND PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED DECEMBER 31, 1920

JOURNAL:			
INCOME:			
Fellowship Dues and Subscriptions			$386,827.41
Advertising			$13,746.71
Jobbing			16,643.35
Books			8,228.29
Reprints			5,937.14
Insignia			2,135.92
Miscellaneous Sales			16,828.39
Interest			5,096.82
			$954,660.83
Expenses, Schedule "1"			791,665.03
Net Income from Journal			$162,995.80
MISCELLANEOUS INCOME:			
Cooperative Medical Advertising Bureau		$ 209.16	
Directory, Sixth Edition		1,440.02	
Archives of Internal Medicine		388.46	
Rent		3,740.00	
Miscellaneous		271.10	
		$	6,048.74
			$169,044.54
Association Expenses—Schedule "2"		$85,203.59	
Less (Session) 1920		923.50	
		$84,280.09	
Miscellaneous Expenses—Schedule "3"		51,908.87	
			$136,183 96
Net Gain on Operations			$ 32,855.58

JOURNAL EXPENSES—SCHEDULE "1"

Wages and Salaries	$288,411.48
Editorials, News and Reporting	8,655.48
Paper—Journal Stock	298,358.66
Paper—Miscellaneous	16,427.95
Electrotypes	16,352.17
Binding	449.25
Ink	7,487.36
Postage—First Class	19,957.02
Postage—Second Class	38,080.22
Journal Commissions	8,338.91
Collection Commissions	848.07
Discounts	18,121.89
Express and Cartage	3,466.44
Exchange	3,893.05
Office Supplies	2,136.07
Telephone and Telegraph	1,306.76
Office Jobbing	6,088.81
Miscellaneous	14,577.09
Power and Light	3,951.76
Fuel	4,629.93
Factory Supplies	11,827.14
Repairs and Renewals—Machinery	5,167.53
Bad Debts, Net Loss	1,022.13
	$779.555.14

Depreciation: Property and Equipment	Rate	Amount
Machinery	15%	$7,725.87
Furniture and Equipment	15%	1,952.55
Factory Equipment	15%	705.84
Type	20%	777.37
Metal	20%	948.26
		$ 12,109.89
Total		$791,665.03

ASSOCIATION EXPENSES—SCHEDULE "2"

Association	$ 28,649.19
Health and Public Instruction	11,739.31
Pharmacy and Chemistry and Chemical Laboratory	21,766.78
Medical Education and Hospitals	17,523.11
Organization	3,531.74
Therapeutic Research	1,822.63
Laboratory Depreciation—10%	170.83
Total	$ 85,203.59

MISCELLANEOUS EXPENSES—SCHEDULE "3"

Building "B" (New), Depreciation 5%	$ 7,575.28
Building Improvements	6,000.00
Insurance and Taxes	8,031.65
Legal and Investigation Expense	600.00
Building Maintenance	4,879.52
Depreciation Library—10%	81.80
Periodical Publications	24,740.62
	$ 51,908.87

The audit embraced an exhaustive test of the various sources of income and the verification of the cash disbursements with proper vouchers on file.

We are pleased to report that we found the accounting records to have been kept in the usual good order and that every facility was afforded us for the proper conduct of the audit.

Yours truly,

MARWICK, MITCHELL & Co.

Report of the Judicial Council

Dr. M. L. Harris, Illinois, Chairman, presented the report of the Judicial Council, which was referred to the Reference Committee on Report of Officers:

To the Members of the House of Delegates of the American Medical Association:

At the New Orleans session of the House of Delegates, a resolution was adopted requesting the Judicial Council, at the next annual session, to report "a concrete proposition" or plan for reducing the number of Trustees of this Association from nine to seven and to subdivide the United States into seven Trustee Districts.

Under the present plan there are nine trustees, each elected for three years, the term of service being so arranged that the terms of three trustees expire each year. There are, therefore, three trustees to be elected each year for a term of three years. If the House of Delegates shall determine to reduce the number of trustees to seven, and if it is desired that the term of office of all of them shall not expire at the same time, the only satisfactory plan would be to make the term of office seven years instead of three years and to arrange so that the term of office of one trustee in rotation shall expire each year.

If then the House of Delegates should decide to make the change, the following plan is suggested: At the annual session in 1922 when the term of office of three trustees expires, elect one trustee for a term of seven years. In 1923 when the term of office of three more trustees expires, elect one trustee for seven years, one for five years and one for four years. In 1924, there will be four holdover trustees for terms of six, five, four and three years respectively, with three to be elected, one for a term of seven years, one for two years and one for one year. In 1925, there will be six holdover trustees for terms of six, five, four, three, two and one year respectively with one trustee to be elected for a term of seven years. Thereafter, there will be one trustee to be elected each year for a term of seven years.

Of course, before any change can be made in the number of trustees, it will be necessary for the trustees to change the Articles of Incorporation, as the number of trustees is fixed in the present Articles of Incorporation. The House of Delegates can direct the Board of Trustees to have the necessary changes made in the Articles of Incorporation any time during the coming year, but the change in the Constitution would have to be proposed this year and lie over one year before it could be adopted and become operative.

For the subdivision of the United States into seven trustee districts, the following is submitted as a tentative proposition:

First District	Number of Members	Number of Delegates
Maine	657	1
New Hampshire	506	1
Vermont	380	1
Massachusetts	3,975	5
Rhode Island	376	1
Connecticut	1,007	2
New York	8,819	11
Total	15,720	22

Second District		
Pennsylvania	7,362	9
New Jersey	1,816	3
Delaware	129	1
Maryland	1,262	2
District of Columbia	545	1
Virginia	1,828	3
West Virginia	1,091	2
Total	14,033	21

Third District		
Ohio	4,552	6
Indiana	2,423	3
Illinois	6,978	8
Michigan	2,815	4
Total	16,768	21

Fourth District		
North Carolina	1,598	2
South Carolina	631	1
Georgia	1,225	2
Florida	577	1
Alabama	1,664	3
Mississippi	481	1
Tennessee	1,701	2
Kentucky	2,039	3
Total	9,916	15

Fifth District		
Louisiana	1,081	2
Arkansas	1,195	2
Missouri	3,329	5
Oklahoma	1,293	2
Texas	3,547	5
Total	10,445	16

Sixth District		
Iowa	2,276	3
Wisconsin	1,938	3
Minnesota	1,507	2
North Dakota	454	1
South Dakota	396	1
Nebraska	1,182	2
Kansas	1,581	3
Total	9,334	15

Seventh District		
Montana	374	1
Wyoming	97	1
Colorado	853	2
New Mexico	272	1
Arizona	245	1
Utah	233	1
Idaho	223	1
Washington	985	2
Oregon	606	1
Nevada	88	1
California	3,328	3
Canal Zone	74	1
Hawaii	81	1
Philippine Islands	158	1
Porto Rico	155	1
Total	7,771	19

The foregoing division makes provision so that no one state will have the majority of the delegates in the district in which the state is included.

As already stated, the foregoing is presented to the House, not as a recommendation from the Judicial Council, but in response to the action taken by the House of Delegates requesting the Judicial Council to submit a plan which will effect the change provided the House deem it advisable to do so.

During the past year one case has been presented to the Judicial Council for adjudication. This is an appeal of the Spokane County Medical Society from an action of the Washington State Medical Association. The question raised did not seem to warrant the calling of a special meeting of the Council, especially in view of the short time intervening before the next regular meeting of the Council at the annual session. The case, therefore, will be taken up at the regular meeting of the Council at this annual session, when a full report on this question will be made to the House.

Respectfully submitted,

M. L. HARRIS, Chairman,

I. C. CHASE,
H. A. BLACK,
RANDOLPH WINSLOW,
WILLIAM S. THAYER,
A. R. CRAIG, Secretary.

Report of the Council on Health and Public Instruction

Dr. Victor C. Vaughan, Michigan, Chairman, presented the report of the Council on Health and Public Instruction, which was referred to the Reference Committee on Reports of Officers.

The report follows:

To the Members of the House of Delegates of the American Medical Association:

The Council has continued during the past year to develop the program which it adopted in 1914 and which it has followed since that time. This program includes three main objects, namely:

I. Investigation of the existing health conditions with a view to securing accurate information on all phases of the public health situation.

II. Education of the public and the profession by every means within the resources of the Council, in order that the public may understand the advance of scientific medical knowledge and the possibility of utilizing such knowledge in the prevention of disease, the reduction of the death rate and the preservation of human lives.

III. The crystallization of public sentiment into such practical health laws, regulations and ordinances as may be necessary for the conservation of human life.

Reorganization of Federal Public Health Activities

In the report of the Council for 1920, the situation existing at that time regarding public health reorganization was stated at length as well as the cooperative efforts which had been undertaken by the Joint Committee of the Council, the State Health Officers Association and the American Public Health Association. In accordance with the action of the House of Delegates, the Surgeon-General of the United States Public Health Service was requested to designate three officers of the Public Health Service to cooperate with this committee. In accordance with this request Surg.-Gen. Hugh S. Cumming designated Assistant Surgeons-General Allen W. McLaughlin, W. S. Warren and J. W. Schereschewsky to cooperate with the Joint Committee.

Following the reassembling of Congress on December 4, 1920, efforts were made to secure the passage of House Resolution No. 33. Almost immediately after Congress reassembled, however, a joint resolution was introduced in the Senate by Senator Smoot of Utah, and in the House, by Mr. Reavis of Nebraska, providing for a congressional committee to make a survey and prepare a report on the reorganization of the executive departments of the federal government. This resolution passed both Houses and became a law without the President's signature. As the scope of this resolution was much broader than that of Resolution No. 33, it was impossible to secure the consent of the Republican Steering Committee to consider the later measure. Following the passage of the Smoot-Reavis resolution the following Joint Congressional Committee was appointed: Senators Reed Smoot of Utah, James W. Wadsworth of New York, and Pat Harrison of Mississippi, and Representatives C. F. Reavis of Nebraska; H. T. Temple, Pennsylvania, and R. W. Moore, Virginia.

Efforts are now being made to secure information regarding the plans of this committee and as to whether they are taking up public health as one of the first subjects to be considered; whether it will consider this subject in committee of the whole or will appoint a subcommittee thereon, etc.

Attitude of the Administration on Public Health

During the presidential campaign of 1920, Senator Harding repeatedly stated in his speeches that he regarded public health and human welfare as two of the most important subjects for governmental activity and that, if elected President, he would favor the creation of a Department of Health and Welfare with a secretary in the cabinet. Following his inauguration, he commissioned his personal physician, Dr. Charles E. Sawyer of Marion, Ohio, as brigadier-general in the Medical Reserve Corps and assigned to him the special duty of collecting evidence and preparing plans for the development of the health and welfare work of the federal government.

Health Measures Before Congress

With the termination of the Sixty-Sixth Congress on March 4, 1920, all the measures before both Houses at that time were wiped off the calendar. Since the reassembling of Congress on April 11, the following bills have been introduced up to date of the compilation of this report:

House Bills

H. R. 3.—Establishment of Veterans' Bureau, Transferring to It Powers and Duties of War Risk Insurance Bureau and Federal Board for Vocational Training.
H. R. 7.—Creation of an Educational Department, with Appropriation Including Federal State Aid.
H. R. 19.—Provision for Vocational Rehabilitation of Disabled Soldiers.
H. R. 21.—Provision for Vocational Education by Federal State Aid.
H. R. 22.—Creation of a Division of Physical Education.
H. R. 65.—Amending Food and Drug Act of 1906 and Amendments of 1912.
H. R. 116.—Granting Physicians Licensed to Practice in any State, Right to Practice in all States.
H. R. 2193.—Amendment to Third Harrison Law Regulating Importation and Use of Opium.
H. R. 2287.—Amending Vocational Rehabilitation Act of June, 1918, as Amended July, 1919.
H. R. 2492.—Increase of Appropriation for Naval Hospital at San Diego, Calif. to $1,975,000.
H. R. 2501.—Increase of Age Limit of Officers in Medical Reserve Corps to 45.
H. R. 2918.—Creation of Osteopathic Board in District of Columbia.
H. R. 2920.—Establishment of Columbia Training School for Feebleminded Persons in District of Columbia.
H. R. 3186.—Provision for Pensioning Mothers Having Dependent Children under 16.
H. R. 3187.—Provision for Pensioning Aged Poor, Needy Blind and Others Permanently Disabled Whose Income Is Less than $500.
H. R. 4104.—Provision for Purchase and Free Distribution of Antirabic Virus.
H. R. 4109.—Provision for Destruction of Animals Affected with Diseases Endangering Human Health.
H. R. 4118.—Control of Venereal Disease in District of Columbia.
H. R. 4130.—Appropriation of Funds to Increase Compensation for all Enlisted Soldiers and Other War Workers.

Senate Bills

S. 322.—Provision for Naturalization of Aliens and Children of Aliens.
S. 408.—Establishment of Department of Social Welfare, Taking Over Public Health Service, Children's Bureau and Bureau of Industrial Housing and Transportation.
S. 416.—Provision for Physical Education.
S. 526.—Establishment of Department of Health.
S. 758.—Prohibition of Animal Experimentation in District of Columbia and Territories.
S. 802.—Incorporation of American Society for Control of Cancer.
S. 810.—Amendment to Medical Practice Act in District of Columbia.
S. 1039.—Provision for Protection of Maternity and Infancy by Means of Federal State Aid.
S. 2287.—Establishment of Vocational Rehabilitation for Disabled Soldiers.

Coordination of Voluntary Public Health Activities

Definite progress in this field has been made during the past year. Members of the House of Delegates will recall that one of the fundamental objects of the Council for eight years past has been the federation and amalgamation of the existing voluntary public health organizations with a view to securing better coordination in this field.

During the summer of 1920, a survey of existing organization was made by Dr. Donald B. Armstrong of the National Tuberculosis Association under the direction of the American Red Cross and the National Tuberculosis Association. Data regarding existing organizations were collected as well as the personal opinions of over one hundred individuals. Plans for coordination were discussed at conferences and by correspondence with the result that an informal conference was called at Washington on October 18, 1920, at the Red Cross headquarters, followed by a formal conference on December 10, attended by representatives of the American Red Cross; the National Tuberculosis Association; the American Social Hygiene Association; the American Public Health Association; the Council on Health and Public Instruction of the American Medical Association; the Mental Hygiene Association; the National Child Health Council; the National Association for Public Health Nursing; the State Health Officers Association, and the Rockefeller Foundation. At the December conference, the National Health Council was organized, a Constitution and By-Laws were adopted and the following officers elected: Chairman, Dr. F. Livingston Farrand, American Red Cross; vice chairman, Lee K. Frankel,

New York; secretary, Dr. C. St. Clair Drake, State Health Officers Association. An appropriation of $30,000 for two years has been made by the American Red Cross. Permanent headquarters have been established in Washington and a temporary business office at New York. The Service Committee of the National Health Council has leased two floors of the Penn Terminal Building, directly opposite the Pennsylvania Railroad Station and has sub-let office space to the organizations having headquarters in New York. The American Public Health Association has moved its headquarters from Boston to New York, so that all of the organizations composing the National Health Council with the exception of the American Medical Association, the American Red Cross and the State Health Officers Association have headquarters under the same roof, with mutual arrangements for cooperation and service among themselves.

The National Health Council is proceeding slowly and is developing a marked spirit of cooperation, which, it is hoped, will result eventually in working out a common plan of procedure. Applications for admission from a large number of organizations are now being considered and plans are being developed for securing financial support for a constructive program.

Vital Statistics Legislation

In this field, also, the Council on Health and Public Instruction is glad to report definite progress during the past year. In its report for 1920 the Council showed that in 1906, when this work was first undertaken, only ten states in the Union had effective laws for the registration of deaths and only eight states had any laws requiring the registration of births; that during the fourteen years from 1906 to 1920 the Model Bill, developed by the Council in cooperation with the Division of Vital Statistics of the United States Census Bureau and other contributing organizations had been adopted by forty-three states. During the past winter this bill was introduced in the state legislatures of South Dakota, Iowa and West Virginia and was adopted practically without opposition in Iowa and West Virginia, making forty-five states which now have adopted this measure; the largest number of states that have adopted any standard bill on any subject. The only three states that have not yet adopted it are Arizona, Nevada and South Dakota. The Arizona legislature meets in November and it is hoped that this bill can be introduced and passed at that time. The failure of this bill to pass in South Dakota was due largely to lack of education of the public and to a misunderstanding of its provisions. It is almost certain that this measure will be adopted at the next session of the legislature. Regarding Nevada, the large size and the scant population of this state may make it necessary to modify the standard bill somewhat, but as its population amounts to only 77,000 the absence of this state from the registration area will not impair the value of our national vitality statistics. With only three states still to adopt this measure, the end of this work to which the Council and Association has very materially contributed in the last eighteen years is now clearly in sight.

Anti-Vivisection Legislation

During the past winter, out of the forty-two states whose legislatures were in session bills for the prevention of animal experimentation were introduced in four states, viz., Massachusetts, New York, Indiana and Maine. In Maine the bill was dropped. In Massachusetts hearings on the bill were set, but as no one appeared in favor of it, the committee voted not to report it out. In Indiana and New York the bill was killed in committee.

For the first time in the history of efforts to abolish annual experimentation an appeal was made last November in California to popular vote through use of the initiative. The proposed legislation provided for strict abolition of all use of animals "for the purpose of experimental physiological or experimental pathological investigation in or at any university, school, society, college, hospital and institution, or other places within the state of California." The campaign was conducted intensively by both the proponents and the opponents of the measure. At the final vote, it was defeated by a majority of approximately 250,000 votes.

Organization of the Eye Sight Conservation Council

In the report for 1920, attention was called to the discussion then going on among representatives of the American Optical Association, large optical manufacturing companies, representatives from scientific organizations, etc., with a view to the inauguration of a campaign for the education of the public on the conservation of vision and the detection and correction of errors of vision, especially among school children, industrial employees, etc. The secretary and Dr. Cassius D. Wescott, chairman of the Council Committee on the Conservation of Vision, were invited to attend several of these conferences. In the fall of 1920, the Eye Sight Conservation Council was organized. Its membership is made up of various organizations devoted to human welfare and betterment, with a business committee to finance it, made up of the representatives from large manufacturers. Dr. Wescott was elected vice president and the secretary was asked to serve on the Board of Councillors. These appointments were accepted with the proviso that all literature and publicity material for public use should be passed on by the two representatives of the Council—a condition to which the Eye Sight Conservation Council agreed. Plans for the work of the Council are now being formulated.

Cooperation with the National Education Association

The Committee on Cooperation with the National Education Association has sent in a separate report which appears herewith. (See Appendix *A*.)

The Council wishes to call attention to the fact that in response to its request that the state societies appoint state committees on this subject to cooperate with the states' teachers' associations, special committees have been appointed in thirty-four states, as follows: Alabama, Arizona, Arkansas, Colorado, Connecticut, Georgia, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Utah, Vermont and Wisconsin.

Arrangements for a meeting of the state committees during the time of the Boston Session of the American Medical Association have been made for conference purposes and for the development of uniform plans. A recent development in this field is the appointment by the American Public Health Association of a Committee on Health Teaching in the Public Schools, which may easily be expanded into a Committee on Health Problems in Education that will cooperate with the Joint Committee of the American Medical Association and the American Education Association.

Midwinter Conference

The Midwinter Conference was held March 7-10, 1921. On the fourth day of the conference a special program was presented by the Council, as follows:

Morning Program—9:30 A. M.

Rural Health Centers

Rural Health Centers as an Aid to General Practitioners, Victor C. Vaughan, M.D., Chairman, Council on Health and Public Instruction, American Medical Association, Ann Arbor.

What We Have Done in Iowa, F. E. Sampson, M.D., Creston, Iowa.

General Discussion opened by Frank Billings, M.D., Chicago.

Afternoon Session—2 P. M.

The Organization of the Public for Health Work

From the Standpoint of the Council on Health and Public Instruction of the American Medical Association, W. S. Rankin, M.D., Secretary, North Carolina State Board of Health, Raleigh, N. C.

From the Standpoint of the State Health Officer, S. J. Crumbine, M.D., Secretary, Kansas State Board of Health, Topeka, Kan.

From the Standpoint of the State Medical Society, F. C. Warnshuis, M.D., Secretary, Michigan State Medical Society, Battle Creek, Mich.

From the Standpoint of the State Public Health Association, Celestine J. Sullivan, Secretary, League for the Promotion of Public Health, San Francisco.
From the Standpoint of the Voluntary Public Health Association, Charles J. Hatfield, M.D., Secretary, National Tuberculosis Association, New York.
From the Standpoint of the Business Man, Lee K. Frankel, Third Vice President, Metropolitan Life Insurance Company, New York.
From the Standpoint of Women's Organizations, Lena L. Meanes, Woman's Foundation for Health, New York.

Proposed Amendments to the Harrison Law

No attempt has been made during the past year to amend the Harrison law which regulates the registration of physicians and the prescribing or dispensing of habit-forming drugs. On December 6, 1920, a bill was introduced in the Senate by Senator Jones of Washington (S. 4533) and in the House by Mr. Miller of Washington (H. R. 14500) amending Section 6 of the second Harrison law so as absolutely to prohibit any exportation of opium or cocaine or their derivatives from the United States to any foreign country or the shipment "in transit" through this country of any of these drugs, and to restrict importation of opium into this country to such amounts as shall be found necessary for actual medicinal use by the Surgeon-General of the United States Public Health Service. Following a large number of hearings before both the House and the Senate committees, Mr. Rainey introduced on Jan. 4, 1921, a substitute for the Jones-Miller bill, which on January 18 was introduced in the Senate by Senator Curtis (H. R. 15511, S. 4895). The Curtis-Rainey bill permits exportation to those countries which have adopted the provisions of Article 13 of the Hague Convention of 1912, and limits importation to such amounts as the Secretary of the Treasury and the Secretary of Commerce may find to be necessary for medicinal purposes.

In accordance with the instruction of the House of Delegates at the New Orleans meeting, the Council appointed as a subcommittee on this subject Dr. Haven Emerson of New York; Dr. A. C. Prentice of New York; Dr. George W. McCoy, United States Public Health Service, Washington, D. C.; Dr. Thomas S. Blair, State Health Department, Harrisburg, Pa. The report of this special committee is appended herewith (Appendix B).

The Treatment of Tuberculous Patients in General Hospitals

At the New Orleans Session a telegram from the Surgeon-General of the United States Public Health Service was presented urging the active participation by general practitioners and general hospitals in the treatment of tuberculosis. At the meeting of the Council, held November 11, 1920, a communication from the Surgeon-General on this subject was received and the Surgeon-General was requested to formulate the action which he wished the Council and the Association to take. In response to this request the following resolution has been submitted which is herewith referred to the House of Delegates for action with the recommendation that it be adopted:

Whereas, There is an unfortunate tendency in various parts of the United States to exclude patients even of tender years, with pulmonary tuberculosis from general hospitals; and

Whereas, This tendency results chiefly from incomplete knowledge of an earlier period when the simple prophylactic measures were not thoroughly understood and when the dangers of dissemination were greatly overestimated; and

Whereas, The exclusion of tuberculous patients from general hospitals has resulted in depriving large numbers of tuberculous patients from proper hospital care in emergencies and their exile against their wishes, to special institutions often remote from home and friends; and

Whereas, This practice has resulted in the relegation of tuberculosis largely to specialists, to the great detriment both of tuberculous patients who are compelled to seek in special places the necessary medical skill, and of the general practitioner who is thus deprived of the opportunity to acquaint himself with the diagnosis and treatment of tuberculosis; and

Whereas, It has been demonstrated in a rapidly increasing number of institutions that tuberculous patients may be admitted into separate wards in general hospitals without detriment to other patients; and

Whereas, The admission of tuberculous patients to general hospitals for temporary periods will tend to allay phthisiphobia, improve the home treatment of tuberculosis and popularize the home climates without in any way discounting the value and need of special tuberculosis sanatoria for patients suitable for and desiring treatment therein; be it

Resolved, That the American Medical Association recommends that general hospitals in all parts of the United States should provide separate wards or separate rooms for the care of tuberculosis patients, and that such patients be never denied admission, at least in emergency and for temporary periods, because of the character of the disease from which they are suffering.

Venereal Disease Control

At the meeting of the Council, held March 9, 1921, a communication was received from Surg.-Gen. Hugh S. Cumming regarding the teaching of medical students in the diagnosis and treatment of venereal diseases. At the request of the Council the Surgeon-General submitted the following resolution:

Resolved, That the venereal disease control movement cannot reach full effectiveness without the intelligent and sympathetic cooperation of the medical profession, and that this cooperation should include the rapid extension of teaching facilities for the use of medical students whereby the knowledge of the medical, social and public health aspects of these diseases may be taught by actual clinical contact with patients in the clinic, under the direction of qualified teachers.

While the Council realizes that this question, in so far as its educational problems are concerned, belongs to the Council on Medical Education and Hospitals, it also feels that there are sufficient public health features in the question to justify the presentation of this resolution to the House of Delegates with the recommendation that it be adopted.

Nature and History of Syphilis

At the New Orleans Session the House of Delegates referred to the Council a resolution from the Section on Dermatology and Syphilology regarding the need of more complete clinical records. At the meeting of the Council on July 9, 1920, Dr. Sanger Brown, who originated the resolution, was present, on invitation. After discussion of the question, the Council authorized Dr. Brown to consult the Interdepartmental Social Hygiene Board, the Rockefeller Foundation, the United States Public Health Service and the American Social Hygiene Association regarding his plans with the approval of the Council.

National Conference on Leprosy

At the New Orleans Session a resolution from the Section on Preventive Medicine and Public Health requesting the calling of a National Conference on Leprosy was referred to the Council. At the meeting of the Council on July 9, 1921, a communication from the Surgeon-General of the United States Public Health Service was presented, recommending the deferring of this conference until later, in order to give opportunity for the observation of the operation of the National Leprosarium, recently established.

Migration of Indigent Consumptives

At the New Orleans Session a resolution on this subject was presented and referred to the Council. Dr. Haven Emerson was appointed as a special committee on this subject. A preliminary report was presented at the time of the Council meeting on Nov. 7, 1920, but in view of the fact that the results of a study still in progress undertaken by the National Tuberculosis Association are not yet available, the presentation of a formal report on this subject is deferred until a later period.

Referendum on Health Questions in California

During the summer of 1920, there was presented for the consideration of the voters of California four propositions under the Initiative and Referendum law in the form of amendments to the state constitution. They appeared on the ballot as Proposed Amendments 5, 6, 7 and 8. Number 5 created a chiropractic board of examiners; No. 6 prevented any form of animal experimentation; No. 7 forbade compulsory vaccination or the exclusion from the public schools of unvaccinated children; No. 8 gave osteopaths the right to prescribe drugs. The Council at its meeting on July 11, 1920, voted to cooperate with the Medical Society of California and the California League for the Conservation of Public Health to the extent of its ability. At the November election all four of the propositions were defeated by majorities ranging from 200,000 to 350,000.

SOCIAL RELATIONS OF THE MEDICAL PROFESSION

At the New Orleans meeting of the Association, the House of Delegates adopted the following resolution:

Resolved, That the Council on Health and Public Instruction be instructed to investigate the relative adequacy of the medical service and the relation of the public to the profession and to report at the next annual session.

At the meeting of the Council, held July 7, 1920, there were present, in addition to the Council, on invitation, the following: Dr. Frank Billings, secretary of the board of trustees; Dr. George H. Simmons, general manager and editor of THE JOURNAL; Dr. George E. Vincent, president of the Rockefeller Foundation; Dr. J. W. Schereschewsky, representing the Surgeon-General of the United States Public Health Service; Dr. C. St. Clair Drake, director of public health of the state of Illinois and secretary of the State Health Officers' Association. The chairman of the Council presented the following statement:

PROPOSITIONS TO BE LAID BEFORE THE COUNCIL ON PUBLIC HEALTH AND LEGISLATION OF THE AMERICAN MEDICAL ASSOCIATION TO BE HELD IN CHICAGO, JULY 9, 1920

I assume that the chief aim of the medical profession is to reduce the morbidity and mortality to a minimum.

On this assumption the medical profession should ask itself to what extent it is now accomplishing this aim and what should be done to improve its work in this direction. I am therefore submitting to the Council for debate the following propositions:

1. Have we enough doctors in this country?
2. Are they doing the work as it should be done?
3. What steps should be taken to induce our medical schools to better prepare our doctors?
4. It is generally admitted that the best medical schools do not give adequate instruction in preventive medicine. What shall be done to improve education in this line?
5. It is generally admitted that the average physician deteriorates after leaving the medical school. What can be done to prevent this?
6. Is the American Medical Association manifesting sufficient interest either in preventive medicine or improving the conditions under which the average doctor practices his art?
7. What steps can the American Medical Association take to secure better qualified physicians and to stimulate those now in practice to better work?
8. Should the American Medical Association devote more time, energy and money to preventive medicine?
9. Should the Council advise the House of Delegates at its next meeting to request the Board of Trustees to publish a public health journal with some such title as the following: *Journal of Preventive and Curative Medicine?*
10. What should the attitude of the American Medical Association be toward community medicine and the establishment of community hospitals?
11. What should be the attitude of the American Medical Association toward the various voluntary health organizations now operating in the country, such as the International Health Board, the American Red Cross, the National Tuberculosis Association, Child Welfare Society, etc.?
12. Should not the Council on Public Health and Legislation attempt to present to the House of Delegates at its next meeting a definite program showing the attitude of the Association toward all preventive agencies and to the improvement of conditions under which the practice of medicine is now proceeding in this country?

Following a lengthy discussion a committee was appointed consisting of five members of the Council, with the following additional members: Dr. Frank Billings, Chicago; Dr. Herman Biggs, New York; Dr. Hugh Cabot, Ann Arbor, Mich.; Dr. F. E. Sampson, Creston, Iowa. This committee held a meeting on November 11, 1920. At this meeting there were present, besides the members of the committee: Dr. Hubert Work, president-elect of the American Medical Association; Dr. Wendell Phillips of the board of trustees and others. After a lengthy discussion the following statement was formulated and published in THE JOURNAL for December 4, 1920:

1. The Council believes it highly desirable that the nature and transmission of communicable diseases should be taught in the public schools of the country. This is already a legal requirement in a few states. In other states such instruction is confined to tuberculosis. The secretary of the Council was requested to gather such information as he may be able to find bearing in this matter and to have framed a model bill for introduction into the legislatures of the states which do not already provide for such instruction.

2. The Council believes that teachers in our public schools should know something about the communicable diseases and what should be done with pupils under their charge developing these diseases. The Council believes that a course in epidemiology should be required in all normal schools and in schools of education in our universities; in short, that no one should be licensed to teach without having had instruction in epidemiology. The secretary of the Council was requested to have formulated a model bill bearing upon this subject.

3. The Council is of the opinion that there should be a closer cooperation between the medical profession and laymen who are interested in public health, and the Council recommends that sections on public health and sanitation be organized in state and local medical societies, and that laymen interested in public health be admitted as associate members of this society and referred to the sections. In the opinion of the Council, this matter should be discussed more fully at the next meeting of the Council in March, 1921.

4. In the opinion of the Council, it is highly desirable that the American Medical Association should, as soon as possible, begin the publication of a popular, up-to-date journal on sanitation and epidemiology, which should give to the public the latest, most complete and most scientific information concerning the prevalent and communicable diseases. It is the wish of the Council that this matter be referred to the Board of Trustees of the American Medical Association.

5. The Council on Health and Public Instruction believes that the American Medical Association should take steps to secure the following results:

(*a*) To assist local medical practitioners by supplying them with proper diagnostic facilities.

(*b*) To provide for residents of rural districts, and for all others who cannot otherwise secure such benefits, adequate and scientific medical treatment, hospital and dispensary facilities and nursing care.

(*c*) To provide more efficiently for the maintenance of health in rural and isolated districts.

(*d*) To provide for young physicians who desire to go to rural localities, opportunities for laboratory aid in diagnosis.

(*e*) The Council believes that these results can be best secured by providing in each rural community a hospital with roentgen-ray and laboratory facilities to be used by the legally qualified physicians of the community. The secretary of the Council was requested to study the laws of the different states bearing upon this subject and to prepare a model bill to be studied more fully at the meeting of the Council in March, 1921.

At the Midwinter Conference the morning program was devoted to a discussion of health centers and rural hospitals and the afternoon to the organization of the public for health work.

At the meeting of the Council, held March 9, 1921, the secretary presented a report on state enabling acts for the erection of county hospitals, showing the present condition of state legislation on these subjects. This report is submitted in Appendix C.

The Council also voted to use the Iowa law as a basis for discussion and criticism. The text of the Iowa law is submitted in Appendix D.

The Iowa law with the abstract of the state legislation on the subject of rural hospitals has been printed in pamphlet form and distributed widely for criticism and suggestion throughout the country. During the winter of 1921-1922 state legislatures will meet in only a few states, so that we have a year and a half in which to prepare a model bill on a constructive public health plan which will carry out the plans of the Council as expressed in its formal statement.

TEACHING OF HEALTH IN THE PUBLIC SCHOOLS

In accordance with the instruction of the Council the secretary sent a letter to the secretary of the state board of health in each state, asking whether there was any law requiring the teaching of communicable diseases in the public schools or requiring the instruction of teachers on the subject of communicable diseases and their prevention. Replies from twenty-eight states showed that laws had been adopted in five states—Idaho, Kentucky, Utah, Michigan and Virginia. All five of the laws are largely modeled on the Michigan Act of 1895, which is submitted in Appendix E. The Council has taken this law as the basis for a model law and has had copies of it printed and distributed for criticism and suggestion.

ATTITUDE OF THE ASSOCIATION TOWARD SECTARIANISM

During the past year the efforts of the so-called "chiropractors" to secure the passage of bills creating independent boards for examining and licensing followers of this cult, have created considerable disturbance in the ranks of the medical profession, especially in some of our western states. Apparently, this cult is about to repeat the experience of homeopathy, osteopathy and other sects. The natural history of each of these cults is the same. Originating as a fantastic method of treatment, generally conceived by some individual without scientific training but with marked evangelistic ability, it has been taken up as the central idea of a cult and preached with a zeal and fanaticism equaled only by religious devotees. Supported by that portion of the public that is attracted by anything new and fantastic; growing on oppo-

sition and discouragement, and developing a fervor, devotion and influence far out of proportion to their numbers, each sect has risen, gathered adherents and flourished for a little while, and eventually dropped its peculiarities, discarded its distinctive and absurd doctrines and finally either disappeared or has been absorbed into the ranks of the general medical profession. This has been the history of the sects of the past. Such a process is now going on in osteopathy. Each generation of physicians regards the sects and cults of their day as entirely unique, forgetting that many sects in medicine have existed and disappeared in the past and that many more will probably appear in the future. Each generation attempts to suppress the sects of its day by much the same methods, and with about the same degree of success. In spite of all our efforts and often aided by our mistakes, each sect goes through the same cycle and its duration is usually limited to a generation or two. Stimulated partly by personal motives and partly by a desire to protect the public, physicians have at all time sought to suppress these sects. But the methods used have often been short-sighted and ill-advised, and as a result, the attitude of the medical profession on sectarianism has been in the past, and is at present, confused and impractical, often defeating the purposes in view, viz., the protection of the public from fraud and charlatanism and the maintenance of professional standards. Physicians have always insisted on discussing sectarianism from the standpoint of its scientific claims, forgetting that both the public and the legislators are unfitted to appreciate or decide scientific questions. The question is not a scientific one, neither is it one which can ever be settled even temporarily by the use of partisan or repressive measures. It is essentially a question of popular psychology, and the remedy lies in education and not in legislation. Until the public is taught to distinguish between true scientific progress and pseudo-scientific propaganda, cults and sects in medicine will have a certain amount of popular support. Our efforts to control the situation in the past has been largely ineffective, because we have not attempted to enlighten public ignorance, which is the essential factor, but have attacked the cults themselves, which are the result and not the cause. Our efforts have not only been futile but they have been irritating and have consumed time and energy which could much better be devoted to other purposes. The attitude of physicians towards sects in the past has been neither dignified nor effective. This is the situation which organized medicine must meet, and which, so far, it has not met intelligently. The Council, therefore, recommends that it be instructed to appoint a committee to study the entire question of sects in medicine and the attitude which the American Medical Association should adopt regarding them and to report at a future session.

The Value of Vaccination

Another subject of much controversy at present is that of compulsory vaccination. For many years the value of vaccination as a means of preventing smallpox has been so universally recognized by all intelligent physicians and competent health officials, that little attention has been given to the collection and tabulation of statistics on smallpox and vaccination. In a number of states, especially those western states which have adopted the initiative and referendum, there has developed an organized effort to repeal all laws providing for compulsory vaccination. The literature used in this campaign contains the most exaggerated and misleading claims regarding the character of smallpox, the reasons, other than vaccination, for its reduction, the nature and dangers of vaccination, etc. The statements made are often so general, so sweeping and so misleading as to require a discussion of the entire subject to answer them specifically. It is impossible for the individual physician to devote the time and labor required for such a task. Educational material covering the entire subject, tabulating all the available statistics, and especially specifically replying to and refuting the statements made in the antivaccination literature, is needed to meet the situation. This is a work which must be done, partly by health officers, partly by the statistician and partly by educators. To accomplish this purpose, the Council requests that it be authorized to appoint a committee to survey the entire subject and to prepare suitable material for educating the public on this question.

Organization of the Public for Health Work

But both of these subjects are part of a greater question, namely, the effective education of the public in securing better conditions for its own protection. The people can only protect themselves as they become better informed regarding the advance in our knowledge of the cause of disease and its prevention. This requires public education on a large scale. Even if physicians were fitted for such work and could afford to take the time necessary for it, the cost of such education, if properly carried on, is far beyond the resources of the medical profession. Neither is there any reason why we should be expected to pay for the education of the public. Yet the public must be properly taught and properly guided, and whatever form such guidance may take, a certain amount of organization of the public is necessary in order to carry out such instruction effectively. In the numerous organizations now in this field, we may see the results of efforts along this line which have been made without any definite plan or effort at coordination. Out of the existing chaos which has been developing for the last twenty-five years, there must come some kind of order and coordination. The public must be organized in some effective fashion for the conservation of health. What is going to be the character of such organization? Does the solution lie in the admitting of selected laymen to membership in our medical organizations, as suggested by the chairman, in the continued organization and multiplication of individual voluntary organizations in the health field such as now exist; in the gradual conversion of the most vital of these special organizations into public health organizations with an unlimited field; in the concentration of all public efforts into some one existing organization, as was suggested in the case of the American Red Cross; in the organization of state public health leagues de novo; in professional bodies such as the League for the Conservation of Public Health which achieved such a signal victory in California last November; or in some new and as yet unformulated plan of organization?

These are questions which at present no one can answer. The discussion which developed on this subject at the Midwinter Conference and the interest manifested seems to warrant further consideration. The Council, therefore, requests the House of Delegates to authorize it to call a conference in Chicago during the coming summer, probably in July, to which shall be invited the general officers of the American Medical Association; the presidents and secretaries of the constituent state associations; the presidents and secretaries of county and local medical organizations; the presidents and secretaries of the various voluntary state and national public health organizations, and the health officers of the various states for the discussion of the present situation with a view to formulating a plan for the organization of the public for health work.

Educational Material Issued from March 17, 1920, to May 1, 1921

The following pamphlets, cards, charts, etc., have been printed:

Baby Welfare		
Score Cards	20,000	
Record Sheets	26,000	
Antropometric Tables	500	
Posters	1,600	
		48,100
Rules Regarding Animals	200	
		200
Vision Charts	500	
		500
Total cards		48,800
Protection of Research		
I	1,000	
IX	1,000	
XXVII	1,000	
		3,000
Conservation of Vision		
II	1,000	
IX	1,000	
XI	1,000	
XX	1,000	
		4,000
Health and Education		
Minimum Health Requirements	1,000	
Health Charts	500	
Health Essentials	2,500	
		4,000

Sex Education		
Boys' Venereal Peril	5,000	
		5,000
Baby Welfare		
Save the Babies	140,500	
Summer Care of the Baby	2,000	
How to Hold a Baby Welfare Conference	1,000	
		143,500
Public Health		
Smallpox	2,000	
The House-fly	1,000	
Typhoid	4,000	
Pure Water	1,000	
Measles	4,000	
Scarlet Fever	3,000	
What You Should Know About Tuberculosis	370,000	
Child Welfare	1,500	
Cancer		
I	1,000	
VI	1,000	
X	12,000	
		400,500
Miscellaneous		
Why Should Births and Deaths Be Registered?	4,000	
Health Insurance	2,000	
Narcotic Drug Situation	5,000	
Rural Health Centers as Aid to General Practitioners	5,000	
Enabling Acts and Digest of Michigan Law	5,000	
		21,000
Total pamphlets		581,000

Respectfully submitted,

Victor C. Vaughan, Chairman,
W. S. Rankin,
Haven Emerson,
Milton Board,
W. B. Cannon,
Frederick R. Green, Secretary.

REPORTS OF SUBCOMMITTEES OF THE COUNCIL ON HEALTH AND PUBLIC INSTRUCTION

APPENDIX A

Committee on Health Problems in the Public Schools

To the Council on Health and Public Instruction:

Your Committee on Health Problems in the Public Schools submits the following report of its activities for the year ending January 31, 1921:

1. At the summer meeting of the National Education Association, held in Salt Lake City in July last, one one-half day session was given for a public meeting on "Health in Our Schools" which was addressed by Dr. Wood, chairman of the Joint Committee, and others.

2. The tenth annual meeting of the Joint Committee of the National Education Association and the American Medical Association was held on Tuesday, March 1, at Atlantic City—the Hotel Traymore. Copy of the minutes of this meeting accompanies this report, and also a copy of the annual report of the chairman, Dr. Wood, which was by action of the committee approved.

We would call attention to item No. 10 of the report of the meeting at Atlantic City. We are confident that the officials of the National Council of Education and the National Education Association will use every possible effort to secure the cooperation of the several state teachers' associations with the state medical societies to extend and localize this movement for the betterment of health conditions in the schools of the several states.

Attention is also called to the report of the special committees (*a*) on school lighting and conservation of vision, of which committees Dr. Edward Jackson was chairman, and prepared a report, and (*b*) on ventilation and heating, of which committee Dr. R. W. Corwin was chairman. Copies of these reports are transmitted herewith.

In the afternoon of March 1, a public meeting was held in the First Presbyterian Church with an audience of about 200, Dr. Wood presiding. Brief addresses were made by Dr. Wood and Dr. Dodson of your committee, Dr. Bolt of the National Child Welfare Association, Miss Katharine D. Blake of New York, Dr. Frankwood D. Williams of the National Committee for Mental Hygiene, and Mr. Thomas Finegan, commissioner of public instruction of the state of Pennsylvania.

3. The movement inaugurated by action of the House of Delegates in April, last, to extend this activity to the several states has progressed very satisfactorily.

In May, last, a letter was sent to the secretary of each state medical society reporting this action of the House of Delegates and urging that each society appoint, at its next meeting, a committee on health in the public schools, this committee to attend the next meeting of the State Teachers' Association, and ask for a similar committee from that body to form, with the committee of physicians, a joint committee. It was suggested that on the committee of (preferably five) physicians there be included, if possible, an oculist, a pediatrician, one who has been engaged in health work and one who has been actively interested in the public schools as a member of the school board or in some other way.

Up to the date of this report, the following state societies have indicated their purpose to appoint such committees: *Alabama, Arizona, Arkansas,* California, *Colorado, Connecticut, Georgia, Idaho, Illinois, Kentucky,* Louisiana, *Maine, Maryland, Massachusetts, Michigan,* Minnesota, Missouri, Mississippi, *Montana, Nebraska, Nevada, New Hampshire, New Mexico,* North Carolina, *Ohio, Oklahoma, Pennsylvania,* South Dakota, Tennessee, *Texas,* Utah and *Wisconsin.*

The states italicized have reported the personnel of their committee to the secretary of your Council.

When the personnel of a state committee has been reported to the Council a letter of suggestion as to the mode of procedure has been sent to each member. Copy of this letter is transmitted to the Council with this report.

4. Arrangements have been made to hold a conference of the members of the state medical society committees in Boston on the afternoon of Tuesday, June 7, just preceding the opening meeting of the American Medical Association, which is set for the evening of that day. It is believed that such a conference will be of material aid in promoting the extension and more effective conduct of this school health movement in the several states.

If in every state of the Union such a committee of physicians be appointed, cooperating with a similar committee of teachers, there will be constituted a body of 800 or 900 persons seeking the betterment of health conditions and health education in the public schools. Kept in touch with each other and assisted by the National Joint Committee in the matter of securing information and material for a campaign of education, and, where necessary, legislation, these state committees should accomplish important results in this campaign.

It is recommended that this subcommittee be continued.

It is recommended that such sum as may be appropriated by the National Education Association for this work be duplicated by your Council, as has been the custom since the organization of the committee.

John M. Dodson, Chairman,
R. W. Corwin,
George W. Goler,
Edward Jackson.

April 8, 1921.

MINUTES OF THE ANNUAL MEETING OF THE JOINT COMMITTEE ON HEALTH PROBLEMS IN EDUCATION AT BREAKFAST CONFERENCE, HOTEL TRAYMORE, ATLANTIC CITY

In attendance: President Seerley, National Council of Education; P. P. Claxton, R. W. Corwin, John M. Dodson, Ada Van Stone Harry, John F. Keating, William B. Owen, Mrs. Ira Couch Wood, Dr. Bolt (present by request in place of Dr. L. K. Shaw); Thomas D. Wood, chairman.

The following motions were passed by the Joint Committee:

1. That the committee bulletin, "Health Essentials for Rural Schoolchildren," be revised by the chairman and then submitted to the members of the Joint Committee for criticism and approval.

2. That when revised and approved the bulletin on "Health Essentials" be reprinted through arrangement made by the chairman and Dr. Claxton.

3. That the manuscript on "Health Improvement in Rural Schools" be left in the hands of the special subcommittee and the chairman for revision and approval.

4. That, when completed and approved, arrangements for printing the report, "Health Improvement in Rural Schools," be made by the chairman and Commissioner Claxton.

5. The chairman is authorized to represent the Joint Committee in matters affecting reasonable forms of cooperation with the National Child Health Council.

6. That the chairman communicate with Dr. Edward Jackson, to express the appreciation of the Joint Committee to Dr. Jackson and his subcommittee for the very valuable report on "School Lighting" and arrange with Dr. Jackson for the publication of this report in full in such periodicals as THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, the *School Board Journal*, *School Life*, the *New England Journal of Education* and an architectural journal.

7. That the Committee on Ventilation of Schools be continued and that the committee be requested to complete a report, if possible for the next annual meeting, on Ventilation and Heating of Schools, to cover the needs of schools in city and country.

8. That the provisional bulletin on "The Teachers' Share in Social Hygiene" be submitted to the members of the Joint Committee, and, after twenty or thirty days, the chairman, on the basis of suggestions and criticisms received, is authorized to make arrangements with the American Social Hygiene Association for printing this bulletin.

9. The chairman is authorized and requested to present to the officers of the National Education Association and the Department of Superintendence, the following resolution and recommendation from the Joint Committee, viz.:

In view of the great importance of health in education and the present significant recognition of, and focusing of attention upon, this subject, the Joint Health Committee strongly recommends that for two or three years one general session of each National Education Convention and each meeting of the National Department of Superintendence be devoted to the presentation of topics relating to health.

10. That the Joint Committee heartily approves the fullest possible cooperation, in the various states, of state educational and state medical organizations for the promotion of the health interests of the public schools.

11. That Dr. Bolt be thanked for his attendance (at the request of Dr. Shaw) at the meeting of our committee and for the valuable information given by Dr. Bolt regarding cooperation of organizations interested in child health.

THOMAS D. WOOD, Chairman.

APPENDIX B

REPORT OF COMMITTEE ON NARCOTIC DRUGS OF THE COUNCIL ON HEALTH AND PUBLIC INSTRUCTION

The Committee on Narcotic Drugs has met in Washington, and in New York City, and has pursued inquiries by correspondence and in person of the chairman among its members and with others.

The Committee made its first business to carry out the directions given at the time of its appointment by the Council on Health and Public Instruction, which are as follows:

WHEREAS, The Harrison Narcotic Law provides that cocaine and the opiate drugs may be dispensed by a physician "in the course of his professional practice only," and may be dispensed by a dealer on the "prescription" of a physician; and

WHEREAS, The Supreme Court has decided that these provisions of the law do not permit the supplying of these drugs to habitual users under certain conditions, but has not defined the meaning of the words "course of his professional practice" and "prescription," as used in the law, with sufficient definiteness and precision to enable physicians to decide with certainty what acts are lawful and what are unlawful in dispensing and prescribing such drugs; and

WHEREAS, It is desirable and important that the meaning of the law be made so clear that any physician dispensing or prescribing such drugs in any given case can know whether or not he is violating the law; and

WHEREAS, A clear and concrete knowledge of the acts which constitute a violation of the law will not only enable physicians to avoid its violation, but will also materially aid in the enforcement of the law against those who abuse their professional privileges; be it

Resolved, That a special committee be appointed for the purpose of calling upon the Attorney General of the United States and conferring with him as to the practicability of obtaining decisions from the United States Supreme Court which will remove existing uncertainties as to the meaning and application of the provisions of the Harrison Law above referred to; and further

Resolved, That Doctors Emerson, McCoy, Prentice and Blair be and they hereby are designated as such committee, and are hereby authorized and instructed to take the necessary steps to carry out the purpose of this resolution.

At a conference with a representative of the Attorney-General, in his office at Washington, the committee presented the problems stated in the above resolution. As the result of this conference, it was agreed by the Attorney-General's Office that a case would be prepared, by which it is hoped that a definition of medical practice will be reached, which will make clear the purpose and intent of the Harrison Law not to interfere in any way with the proper use of narcotic drugs in the legitimate practice of medicine, but equally not to permit the supplying of narcotic drugs to addicts, even under the guise of medical treatment to cure addiction.

Your committee also called on Mr. L. G. Nutt, director of the Narcotic Field Force of the Bureau of Internal Revenue of the Treasury Department, and transmitted to him the opinion of the Council on Health and Public Instruction, to the effect that the medical profession emphatically condemns the practice of distribution of the habit-forming narcotic drugs to addicts, in the course of their treatment for addiction, in such manner that the addicts may administer the drug themselves. Briefly, the so-called ambulatory treatment of addicts was condemned, whether practiced by the private physician, or in a public institution such as the so-called "narcotic clinic," and the director was urged to make use of the full powers of the Internal Revenue Bureau, under the law, to put an end to this practice.

It was learned that a survey was being made by the Internal Revenue Bureau, for the purpose of determining the amount of narcotic drugs actually imported, manufactured and distributed in the United States. This is regarded as a necessary first step to any accurate estimation of the probable need of habit-forming narcotic drugs in the practice of medicine in the United States.

A study was made of the work of Dr. Thomas S. Blair, chief, Bureau of Drug Control of the Department of Health of Pennsylvania, relating to the amount of habit-forming narcotic drugs, estimated on a per capita basis of opium or its equivalent, annually used in that state by physicians in private practice and in hospital practice.

On inquiry of the Council on Pharmacy and Chemistry of the American Medical Association, the following opinion regarding the therapeutic uses of habit-forming narcotic drugs was obtained:

"The principles governing the use of habit-forming drugs of this type may be stated as follows:

1. They should never be used unless they are deemed essential. In other words, they should not be used for minor affections.

2. No single habit-forming drug should be used continuously in the form of a preparation which the patient may use without the advice of a physician.

3. Morphin and heroin should not be used for symptoms which may be relieved by codein or other less actively habit-forming drugs.

4. The physician should take steps to insure a rigid control of the administration of any habit-forming drugs which he considers it essential to employ, in any particular instance.

5. Especial caution should be observed regarding the use of habit-forming narcotics in chronic conditions, other than those which are incurable, and in which morphin and other opium derivatives are indispensable."

In view of the information at hand, it was deemed wise to defer to a later date attempts to arrive at any quantitative estimation of the needs of habit-forming narcotic drugs in the United States.

Approaching the problem of the narcotic drug situation in its broad aspect, your committee respectfully presents for consideration, the following statement of facts and expressions of its opinions:

1. The International Treaty, known as one of The Hague Conventions entitled, "Suppression of the Abuse of Opium and Other Drugs," was concluded between the United States and other leading world powers in 1912, and was ratified by the Senate and proclaimed by the President of the United States in 1915. Such a fundamental undertaking appears to have been necessary before any individual nation, however remotely isolated geographically or commercially, could effectively guard its own citizens or residents against the introduction and distribution among them of the habit-forming narcotic drugs.

2. The Harrison Law was one of the Acts of Congress, enacted for the purpose of carrying out in good faith its international treaty obligations under The Hague Convention above-named. While technically a tax measure, the purpose and scope of the Harrison Law are such that it is in effect an excellent and desirable means of control by the government of the abuses incident to trade in the habit-forming narcotic drugs. There should be no ambiguity in the interpretation of its requirements by the medical profession, though under cover of the words, "in the course of his professional practice only," some have maintained that exemption is granted to physicians to prescribe or dispense the habit-forming narcotic drugs to addicts, alleging that they were so doing in an attempt to cure addiction; in reality, they were merely maintaining the addict in his customary use of narcotic drugs. Decisions of the courts thus far rendered

have uniformly served to strengthen the obvious conclusion that such use of the professional privilege does not constitute proper professional practice.

3. There should be made an important modification of the law by Congress, to remove the tax burden on the medical profession (the annual tax for registration to permit physicians to prescribe certain habit-forming narcotic drugs was increased from $1 to $3, such increase having been excused at the time of the amendment of the law as a justifiable war-revenue measure, but unfortunately this remains still effective at the present time), which is imposed on physicians without compensatory return. Since the purpose of the Harrison Law is the interest of the public generally, and not taxation of physicians as a class, such class legislation is unfair to the medical profession as well as an unsound economic policy.

The amount of money collected under the Harrison Law during 1920, was $1,513,919.15, a sum far in excess of the amount appropriated by Congress for its enforcement. Furthermore, less than the amount appropriated was actually used in the operations for its enforcement during that year with a total field force of only 170 for the entire United States. To some extent, at least the reason for complaint that the Harrison Law has been ineffective, is obviously the failure to provide adequate funds and personnel for its enforcement, and to use such appropriations to their full extent. Since it was not intended that the Harrison Law should be a revenue producing measure, but that the registration fees of physicians licensed under this act should in part assist in defraying the cost of administration of the law, therefore, your committee recommends that the American Medical Association respectfully urge on Congress that the physician's registration fee be reduced to the nominal sum of $1, and that at least the entire amount received from these fees, fines and other sources of income under the law be appropriated and expended by the government in the strict enforcement of this law.

4. The use of apomorphin and codein rarely if ever leads to the development of addiction to these drugs. Their physiological effects are such as to preclude the probability of their becoming of any importance as habit-forming narcotic drugs. The committee recommends that the American Medical Association respectfully urge on Congress such amendment of the Harrison Law as will permit the prescribing of apomorphin and codein by physicians without the limitations which it is recognized as suitable to impose on those prescribing other habit-forming narcotic drugs.

5. In view of the fact that enforcement of the prohibition laws is at present assigned to the same unit of the Internal Revenue Bureau of the federal government that is also charged with the enforcement of the Harrison Narcotic Law, and since prohibition enforcement necessitates a much larger appropriation of funds and a greater field force, and occupies a larger share of the public attention, it is feared that the important duty of efficient enforcement of the narcotic law may be neglected. . Therefore, your committee recommends that the American Medical Association urge the appointment by the Commissioner of Internal Revenue of a special deputy commissioner in charge of a separate unit for the enforcement of the narcotic law, and that due prominence be given to that service in the accomplishment of its effective functioning.

6. Your committee recommends that the Harrison Law be supplemented in the several states by uniform state laws, in harmony with and supplemental to the Harrison Law, which shall base their control of any medical abuse of narcotic drugs on those powers possessed by the states to punish crime as well as to revoke the license to practice medicine, dentistry, pharmacy or veterinary medicine.

The committee recommends that it be authorized to invite the appointment of committees by organizations representing the professions of dentistry and veterinary medicine, pharmaceutical organizations, and organizations representing the various branches of the drug trade, and to cooperate with such committees, when appointed, in the preparation of a model state narcotic law; it further recommends that it be authorized to request the appointment of a Committee on Uniform State Narcotic Law by the National Conference of Commissioners on Uniform State Laws, and to cooperate with such committees, when appointed, in the preparation of such a law; it further recommends that state narcotic laws should follow the general principles set forth below:

A model state law need not be a tax law; and in fact, the taxing feature should be abolished. Its clear purpose, like that of the federal statute, should be definitely the control of distribution of the narcotic drugs, limiting to the utmost every possible abuse, while conserving the absolute right and duty of the practitioner to exercise his judgment regarding their proper use in the lawful practice of his profession. Such state law should closely follow, and not in any way conflict with the provisions of the federal law of paramount authority. The regulations and details of administration under the two laws should, therefore, be parallel, in order to avoid confusion and to facilitate compliance therewith; and the machinery of enforcement of a state law should be as simple as possible consistent with effective operation.

Unnecessary duplication of records under the federal and state laws should be eliminated, the state accepting the records kept under the Harrison Law.

Power to make and enforce special regulations of any sort, except those absolutely necessary in administrative application of the law, should not be entrusted to state officials. Those regulations considered necessary should be submitted for approval, before being promulgated, to the State Medical Board or other professional body of competent jurisdiction, and to the Attorney-General of the state.

A state law should embrace recognition of the clear purpose and intent of the Harrison Law, evidenced by the words, "in the course of his professional practice only," to prohibit distribution of narcotic drugs through physicians prescribing or dispensing them to addicts for self-administration, under the guise of administering the so-called "ambulatory reductive method of treatment" (since such method does not constitute treatment in good faith, nor has it the sanction of professional practice). Such proper control should be the basis of both state and federal laws. This intent ought to be clearly defined in a state law, i. e., by definitely prohibiting the "ambulatory treatment" of addiction, either by the private physician, or in institutions such as the so-called "narcotic clinic."

Unlawful possession of narcotic drugs should be made "prima facie evidence" of violation of the narcotic law, as in the Harrison Law.

Legal commitment of addicts on their own application, as well as their penal commitment, should be made equally effective in order to insure complete control of them while under treatment for the cure of their addiction.

Provision should be made by the state law for the treatment of those addicted to the use of narcotic drugs, in suitable institutions, existing or proposed for that purpose, or by private physicians, in either case, under the most rigid regulations.

Institutional care and treatment of addicts unable to pay for such care and treatment should be provided for through a state law. In case special institutions are provided for this purpose by the state, the industrial colony plan will approach nearest to the ideal solution of that problem.

All institutions should be required to maintain complete records and make annual reports to the State Department of Health, including all items called for by that body.

Administrative provisions of the narcotic laws in each state should be assigned properly to the State Department of Health, or to a special bureau under its jurisdiction. The department of health in each state should be clothed with plenary police powers in dealing with narcotic addiction as a menace to the public, as power is vested in it for the control of communicable diseases. Public sentiment should demand their effective application.

Penalty for violation of the narcotic laws, or narcotic addiction on the part of a physician, dentist, veterinary surgeon, nurse, druggist, or other practitioner, should include suspension or revocation of the license to practice his, or her, profession, in addition to the legal penalty for the criminal offense imposed by the court, on legal proof of such violation or addiction.

7. Your committee is of the opinion that a study of the need for habit-forming narcotic drugs in the practice of medicine should be undertaken and pursued through the channels of the organized medical profession, as well as by the federal and state authorities. On the basis of such study, it may be determined whether or not the necessity exists, for the limitation of the amount of narcotic drugs imported, manufactured or prepared in the United States. It is the unanimous opinion of the committee that there are, at present, no available data on which could be based any practical plan for limiting imports, or for establishing a government monopoly in the importation, manufacture, preparation and distribution of the habit-forming narcotic drugs (if such plan could be legally adopted by the government, except by an amendment to the Constitution of the United States); and further, that such study could attain results of value, only after a considerable period of years, or when the members of the medical profession shall have been educated to supply accurate records of their actual needs for these drugs in the treatment of disease and the relief of pain and suffering.

8. Your committee desires to place on record its firm conviction that any method of treatment for narcotic drug addiction, whether private, institutional, official or governmental, which permits the addicted person to dose himself with the habit-forming narcotic drugs placed in his hands for self-administration, is an unsatisfactory treatment of addiction, begets deception, extends the abuse of habit-forming narcotic drugs, and causes an increase in crime. Therefore, your committee recommends that the American Medical Association urge both federal and state governments to exert their full powers and authority to put an end to all manner of such so-called ambulatory methods of treatment of narcotic drug addiction, whether practiced by the private physician or by the so-called "narcotic clinic" or dispensary.

In the opinion of your committee, the only proper and scientific method of treating narcotic drug addiction is under such conditions of control of both the addict and the drug, that any administration of a habit-forming narcotic drug must be by, or under the direct personal authority of the physician, with no chance of any distribution of the drug of addiction to others, or opportunity for the same person to procure any of the drug from any source other than from the physician directly responsible for the addict's treatment.

9. Your committee recommends, in view of the fact that habit-forming narcotic drugs have definite, valuable and indispensable uses in the practice of medicine, there should be permitted no encroachment on the right and duty of the physician to exercise his judgment unhampered in the legitimate use of such narcotic drugs. Therefore, your committee recommends that the bills now before Congress which propose to limit the total amount of narcotic drugs which may be imported into the United States be disapproved, and their passage opposed by the American Medical Association, for the reason that such limitation, at the present time, would inevitably make these drugs more expensive and difficult to obtain for proper medical purposes; and that such limitation of the total supply would certainly encourage smuggling of habit-forming narcotic drugs into the United States.

10. Your committee also recommends that the several state and county medical societies, constituent to the American Medical Association, be urged to obtain on their own initiative and through their own officers, such information as may be necessary to bring about the effective prosecution by local, state and federal authorities, of that small number of the members of the medical profession who are now acting in violation of the federal or state narcotic laws.

Respectfully submitted by the Chairman, for the Committee on Narcotic Drugs:

HAVEN EMERSON, M.D., Chairman,
GEORGE A. McCOY, M.D.,
THOMAS S. BLAIR, M.D.,
ALFRED C. PRENTICE, M.D.

[NOTE.—Appendixes C, D and E, containing a list of state laws authorizing county and city hospitals, the text of the Iowa law for county public hospitals and the text of the Michigan law on teaching disease prevention in the public schools, are omitted from THE JOURNAL on account of lack of space.—ED.]

Report of the Council on Medical Education and Hospitals

Dr. A. D. Bevan, Illinois, Chairman, presented the report of the Council on Medical Education, which was referred to the Reference Committee on Reports of Officers.

The report follows:

To the Members of the House of Delegates of the American Medical Association:

Since 1904, when the Council on Medical Education was created, one of its most effective methods of procedure has been the conducting of an annual conference on medical education. The first conference was held in 1905 in Chicago where the conference has been held each year since that time. To these annual conferences have been invited representatives of medical schools, universities, state licensing boards, government medical services, educational foundations and others interested in medical education. These annual conferences have profoundly influenced medical education in this country. In no other field of education in this country have such great advances been made as in medical education in the last fifteen years.

COUNCIL'S WORK MERELY BEGUN

The task undertaken in 1905—the securing of uniform and acceptable standards—has in large part been completed. The accepted American standard is now two years of pre-medical work in an approved college or university, a four year medical curriculum and a year's internship in a hospital, forming as high a standard of medical requirements as that adopted by any other country. But a broad view of the situation shows that instead of being complete, our task has only begun. In New Orleans last year your honorable body added to the duties of the Council that of studying the hospitals of the United States. This increased function came naturally enough, since the addition of a hospital intern year to the medical curriculum had already made it necessary for the Council to investigate hospitals from the educational standpoint.

The work of the Council has grown to include a study of the problems of preliminary education; the undergraduate medical curriculum; the hospital in its relation to clinical teaching and the intern year; graduate medical education and provision for the training of specialists; the development of so-called group practice and the extent to which medical practice is done in hospitals. With this expansion of the Council's work there has gradually grown in the minds of many of us the recognition of a large and complex problem and, whether we desire it or not, our duties have grown far beyond the original idea of merely elevating the standards of medical education. It has become clear that the efforts of the Council and of the organized profession to elevate the standards of medical education; to improve postgraduate medical work; to train specialists, and to improve hospital work, are all for the purpose of providing for the public the best possible facilities offered by modern scientific medicine for the diagnosis, cure and prevention of disease.

ORGANIZED MEDICINE PREFERABLE TO STATE MEDICINE

The possibilities of modern medicine are so great that, like education, it has become one of the great functions of modern civilization. The people of our country, rich and poor alike, are entitled to the great benefits of modern medicine and some plan should be devised to secure these for them. There has been much discussion regarding compulsory health insurance and state medicine. Fortunately for us, other countries have experimented with these methods and the results are not such as to encourage us to follow their example. As our knowledge of the situation has grown it has become more and more evident that these medical problems must be solved and the medical work done by the medical profession itself. In our democratic form of government the medical functions of the city, of the state and of the nation must be developed and carried on largely by those who are best qualified to do it—the medical men themselves. The American medical profession has a thoroughly democratic and representative organization in the American Medical Association, with its county and state medical societies. It covers the entire country and can be made to reach every community.

The medical profession must be awake to its greater opportunities and responsibilities, which means the organization of the profession for further developing the practice of modern scientific medicine.

MANNER OF PROCEDURE

Is this to be accomplished by creating out of the medical profession a huge political machine which shall enter into every town, county and state and which shall enforce laws providing for the medical care to all individuals? Not at all. It is not necessary to alter in any way our present laws or our present organization. The organized profession should simply recognize the fact that its most important function is to secure for all the public the benefits of modern medical practice and to develop intelligent practical plans to furnish the best medical service possible in each community. This program means a cooperation of the profession with the municipal, state and national authorities. It means an intelligent and energetic propaganda for the education of the people and the profession. It means the creation of a public opinion which will demand an efficient, sound, universal medical practice and it means providing the essential equipment.

GENERAL ADVANCEMENT MAKES CHANGES NECESSARY

The advancement in modern medicine during the last forty years has been so great in both the diagnosis and treatment of disease that the practice of medicine has been revolutionized. Forty years ago the practice of medicine was a comparatively simple matter. A general practitioner with good training and with little in the way of instruments and equipment—such as he could carry about with him from house to house, in his saddle bags or in his doctor's buggy—could give to his patients the benefit of the medical knowledge of his time. Today the practice of scientific medicine requires much more. It requires the services not only of the general practitioner but also of specialists trained in limited fields of diagnosis and therapy. It requires extensive plants, equipment and appliances, clinical laboratory facilities, X-ray laboratory facilities, facilities and equipment for employing diagnostic and therapeutic measures in the office, in the clinic and in the hospital. It requires an extensive public health organization to secure the benefits of preventive medicine.

IMPORTANCE OF GENERAL PRACTITIONERS

The development of this complex scheme has brought with it the necessity of educating two classes of medical men, the general practitioner and the specialist. The general practitioner is and will always remain the most important single factor in the practice of medicine. The profession should recognize this and realize that the most important function of our medical schools is to train well-qualified general practitioners and that the undergraduate medical course should be planned with that end in view. The time has arrived when we must reorganize our course of medical study so as to give a broader and less specialized training to the men who graduate in medicine and who are to become general practitioners. The training of specialists should come later, such special preparation to be given to a limited number of men—10 per cent. or more of the practitioners of the community—who are to provide expert medical services in limited fields of practice. The undergraduate course in most medical schools is now being given by a group of specialists, each of whom endeavors to cover pretty fully his subject and to give his students a training in his special field. This is true of all departments. They forget the fact that the medical school cannot perform the impossible task of making expert anatomists, physiologists, ophthalmologists, or orthopedic surgeons, but they can make broadly trained general practitioners whose function is to take care of the ordinary illnesses and surgical emergencies, the obstetric work and the family practice in the communities in which they live. Too often medical faculties do not include teachers broadly trained in general medicine and general surgery, often the professor of obstetrics is a celebrated gynecologist who is immersed in operative work, who devotes the major part of his course to abdominal surgery and the cesarean sections, and who slights his real duty of training his students in the common every day obstetrics which they will need in actual practice.

REVISION OF UNDERGRADUATE CURRICULUM

The undergraduate medical course should be reorganized in several ways:

1. The student should begin clinical work somewhat earlier in his course.

2. The anatomy and physiology and pathology and pharmacology taught should cover the portions of these sciences which will be of service to the student in his clinical work. Anatomy and physiology should not be completed at the end of the second year but should be carried into the hospital and clinic.

3. The clinical work of the ten or more special departments should be simplified and given by the three departments, general medicine, general surgery and obstetrics. Whatever work is given in medical and surgical specialties should be limited to the work required by the student as a general practitioner. The place of the specialist in medical education is in the graduate medical course and his function is the training of specialists. We must give to the position of the general practitioner the importance which it deserves in the whole medical scheme.

WORK OF THE GENERAL PRACTITIONER

To those who have followed the development of medical education and medical practice during the last twenty-five years and noted the great increase in the number of specialists, the overshadowing importance of the broadly trained practitioner in modern scientific practice has become more and more evident. For example, one medical man can take care of the general practice in a community of one thousand people. Ninety per cent. of the illnesses which occur in such a community are the ordinary things in practice—the colds, the infantile diseases, the pregnancies and abortions, the pneumonias and typhoids, the sore eyes and shingles, the broken arms, the epilepsies, the cases of insanity, the heart lesions, the cases of Bright's disease, the gallstone colics, and the cases of appendicitis, the hernias and hemorrhoids. All these cases can be better taken care of by a broadly trained general practitioner who lives in the community and who is always accessible, than they can possibly be by any scheme which employs specialists only. One of the most important functions of the well trained general practitioner is to decide when the services of a specialist are needed. This decision cannot be left to the patient nor to the patient's family; they are not competent to decide.

ADVANTAGES OF GENERAL PRACTICE

In his daily practice the general practitioner has a great and unique opportunity to study disease and to carry on clinical research of greater importance. He sees the complete picture of disease unroll before him; he sees its beginnings; he sees disease when it is most curable; he sees it to the end; he sees disease not only in the individual but also in the family and in the community in which he lives. The specialist does not get this broad and complete view. These facts need special emphasis at this time which is witnessing such an increase of specialism. One of our modernly trained internists said recently: "There is something wrong with our present scheme of medical education. In the group of young men with whom I have trained there are no broadly trained men like Osler and Billings; we are each pursuing some narrow field of work and see nothing beyond that field."

FIELD FOR SPECIALISTS AND DANGERS

As to the specialist trained in a limited field of practice, *there is and there can be but one science of medicine. It cannot be subdivided into specialties;* it is not limited to the eye, the heart, the stomach or the ovary but covers the entire human body in health and in disease. The *art, or practice* of medicine, on the contrary can be and has been very properly divided into a number of the specialties, and with sound reason. The practice of medicine has become so extensive that no one man can master all its details. The division of practice into specialties enables a man to devote intensive study to a limited field, in which he can become expert in the use of special instruments and measures employed in diagnosis and therapy and by intensive research add to our knowledge of the diseases of that field. There are, however, great dangers in specialism. Unless specialists have a broad training and experience in

general medicine as a foundation, they are not safe practitioners. They are apt to limit their observations and therapy to the findings in their special field and to overlook other abnormalities in the individual which may be the essential cause of his illness. The narrow specialist may do a great deal of artificial and unnecessary work and if uncontrolled may be a menace to his patients and to sound medical practice.

There are two safe plans for the practice of a specialty, first, by one who has obtained a broad view of medicine as well as the special training required in his limited field; second, by a specialist who, although he lacks the broad training of the general practitioner, acts as a member of a group well organized for group practice, so that patients referred to him have been first carefully examined by one who is broadly trained in general medicine, who acts as captain of the group; makes a diagnosis of the general condition of the patients; decides what cases require the services of this or that particular specialist, and who controls in a general way the diagnosis and therapy in the case. Some such general control is necessary in the safe practice of any specialty.

BETTER TRAINING OF SPECIALISTS NEEDED

The inspection of the graduate medical schools made by the Council last year revealed the fact that the graduate work being done in this country was entirely inadequate. It was found that many physicians began the practice of some specialty after a short graduate course of six weeks or less. It was noted that a very large number of these short course specialists were learning the technic of tonsillotomy and submucous resections. The Council was convinced by its investigations that it was exceedingly important for the American Medical Association to formulate some plan for the proper training of specialists.

MINIMUM TRAINING FOR SPECIALISTS

With that object in view, during the last year a committee of nine prominent specialists was appointed in each of the laboratory and clinical subjects of the medical curriculum and instructed to formulate a reasonable minimum requirement for men preparing to specialize in that particular field. Outlines of these plans were submitted to the annual conference last March. On the basis of these reports and the general discussion given to them, the Council submits the general plan of graduate training for specialists to the House of Delegates for its approval. If this plan is approved by the American Medical Association, outlines of the minimum requirements in each of the various specialties will then be submitted to twenty or more of our strongest universities having medical departments, with the request that they undertake to provide the required courses of graduate instruction. After such courses have been established, the state licensing boards may find it possible to restrict practice in the specialties to men who have received adequate training in their limited fields. The Council believes it is clearly the duty of the medical profession to protect the public against ill-trained and incompetent medical specialists by securing some such action by the universities and the state licensing boards.

A LARGE AND IMPORTANT TASK

The organization of medical practice by which the public may be benefited by the great possibilities of modern medicine is a problem which involves not only the education of the general practitioner and the specialist but also the establishing of general hospitals, outpatient departments, special hospitals and group clinics, wherever they are needed. It includes also the proper training of nurses, proper public health service and all this work should be combined with the practice of medicine in the most effective way.

The solution of this problem will require the cooperation of many agencies; it will require much, time, imagination and hard work. If the organized medical profession in each state and in each county, recognizes and assumes this task as its most important and basic function; if the medical profession endorses, undertakes and carries on this work, it will be much better both for the public and the profession than to have the task assumed by the state and developed into some scheme of state medicine.

RECOMMENDATION

The Council would respectfully recommend that the American Medical Asssociation undertake the further organization of the medical profession of this country, so as to provide the benefit of modern medicine for all our people.

Other Work of the Council During the Year

The preceding part of the report sets forth the activities of the Council in the establishing of minimum standards of graduate training in the various specialties, reports of which were emphasized at the annual conference in March, 1921. Other activities of the Council during the year and reports of progress are as follows:

HOSPITAL STATISTICS

Tabulated statistics showing the supply of hospitals in the United States were given in the first "Hospital Number" of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, that of

TABLE 1.—COUNTIES WITH AND WITHOUT HOSPITALS

State	Total Counties	Counties Having Hospitals			Counties Having No Hospitals	Percentage Having No Hospitals
		Over 25 Beds	Under 25 Beds	Total		
Alabama	67	14	3	17	50	74.6
Arizona	14	10	2	12	2	14.3
Arkansas	75	10	8	18	57	76.0
California	58	41	5	46	12	20.7
Colorado	63	20	9	29	34	53.9
Connecticut	8	8	0	8	0	0.0
Delaware	3	1	0	1	2	66.7
Dist. of Columbia	1	1	0	1	0	0.0
Florida	54	12	0	12	41	76.0
Georgia	152	21	7	28	124	81.6
Idaho	41	11	4	15	26	63.4
Illinois	102	51	10	61	41	41.2
Indiana	92	37	16	53	39	42.4
Iowa	99	37	19	56	43	43.4
Kansas	105	33	12	45	60	57.1
Kentucky	120	21	11	32	88	73.3
Louisiana	64	10	6	16	48	75.0
Maine	16	12	2	14	2	12.5
Maryland	24	12	1	13	11	45.8
Massachusetts	14	12	1	13	1	7.2
Michigan	83	30	18	48	35	42.2
Minnesota	86	49	23	62	23	26.7
Mississippi	82	17	5	22	60	73.2
Missouri	115	69	6	26	89	77.4
Montana	44	21	7	28	16	36.4
Nebraska	93	19	16	35	58	62.4
Nevada	10	7	6	13	3	30.7
New Hampshire	10	10	0	10	0	0.0
New Jersey	21	17	2	19	2	9.5
New Mexico	33	11	4	15	18	54.4
New York	61	48	5	53	8	13.1
North Carolina	100	31	9	40	60	60.0
North Dakota	53	13	11	24	29	54.7
Ohio	88	46	9	55	33	37.5
Oklahoma	77	18	9	27	50	65.0
Oregon	36	17	6	23	13	36.1
Pennsylvania	67	52	2	54	13	20.9
Rhode Island	5	5	0	5	2	40.0
South Carolina	45	17	1	18	27	60.0
South Dakota	69	15	6	21	48	69.6
Tennessee	96	14	8	22	74	77.1
Texas	231	43	21	64	167	50.6
Utah	29	6	3	9	20	69.0
Vermont	14	7	3	10	4	28.6
Virginia	100	23	6	29	71	71.0
Washington	39	20	4	24	15	38.4
West Virginia	55	23	4	27	28	50.9
Wisconsin	71	33	12	45	26	36.6
Wyoming	21	6	8	14	7	33.3
Totals	3,027	1,002	330	1,332	1,695	56.0

April 16, 1921. These statistics provide information of special value at this time, since from the data published it is easy to ascertain whether or not any particular community is adequately provided with hospital facilities. Table 1 shows the number of counties in each state which are entirely without hospitals and it is interesting to note that in the entire United States 56 per cent. of all counties are without hospitals.

In calculating the supply of hospitals for the various states only the private general and special hospitals were considered which care for patients with acute and subacute cases. Government hospitals, which are limited to the care of soldiers, sailors, marines and other government employees, and state institutions, asylums and other institutions providing largely for the custodial care of severe cases of tuberculosis, and of

insane and other incurable cases, are not included in the calculation, but are dealt with separately.

In collecting these data for publication, unusual efforts were made to obtain information by which all institutions having more than 25 beds could be named in the list, and that all others having between 10 and 25 beds could be included in the calculations. The publication of the report has already had good results, in that several other hospitals, the existence of which was entirely unknown, have since sent in reports, and still others have reported enlargements of their bed capacity, so that our list and data are now more complete.

HOSPITALS PROVIDING GENERAL CARE FOR THE PUBLIC

There are 4,013 private, general or special hospitals open to the public for the general care of the sick. Of these, 2,926 have twenty-five or more beds, while 1,087 have less than twenty-five beds each. Of the 2,926 hospitals having twenty-five or more beds, 483 have been approved for the training of interns. Those marked with an asterisk (*) are general hospitals, while those marked with a dagger (†) are approved for interns who wish to secure clinical training in the specialty which the hospital emphasizes. The fact that a hospital is not approved for the training of interns should not be misinterpreted to mean that the hospital is not providing satisfactory care for its patients. On the contrary, there are many hospitals rendering a very excellent service to their patients which do not seek or utilize interns, and which are undoubtedly worthy of approval as non-intern hospitals.

FACTORS INDICATING NEED AND PRESENT SUPPLY OF HOSPITALS

There are four factors to be considered in determining whether or not any given district, state or community has an adequate supply of hospitals. These are (*a*) the ratio of square miles of area to each hospital; (*b*) the ratio of hospital beds to population; (*c*) the percentage of beds on the average which are in constant use, and (*d*) the percentage of counties which have no hospitals. There are at present 4,013 of these hospitals in the United States with a total of 311,159 beds—one bed to every 340 persons—and of these beds 206,024, or 67 per cent., are in use. There is one hospital on the average to every 741 square miles, ranging from one to every forty-two square miles in Massachusetts to one to every 5,780 square miles in Nevada. The situation in Nevada appears to be less serious, however, than in Mississippi, where there is one hospital to every 1,104 square miles. The latter state is more thickly populated and has only one hospital bed to every 1,054 persons, while Nevada has one bed to every 139. Of the 3,027 counties in all states, 1,695, or 56 per cent., have no hospitals. Table 2 shows the supply of all states arranged by districts. The North Atlantic district is fairly well supplied with hospitals as compared with the South Central and the Western Districts. But a study of the figures shows that in the North Atlantic, as well as in other districts, owing to a poor distribution, some portions have an abundance of hospitals while other sections are entirely lacking.

HOSPITALS UNEQUALLY DISTRIBUTED

As to the adequate proportion of hospital beds to population, estimates by experts vary in stating that there should be one bed to every 300 to 500 persons. These statistics show one bed to every 340 persons, which would indicate an adequate supply, but since 56 per cent. of all counties are without hospitals, it is evident that the supply is poorly distributed. With a better distribution, it is quite probable that the proportion of beds in use would be much larger than 67 per cent., as shown in the statistics. An investigation of the supply in Delaware shows that the seven hospitals in that state are all located in the extreme north end—a part where the public has also the easiest access by rail to the hospitals of Baltimore and Philadelphia—while four fifths of the state have no hospitals. [Charts showing the hospital supply for all states have been prepared and are shown in the Scientific Exhibit.]

The lesson to be learned from the figures published in the Hospital Number of THE JOURNAL is that in the establishing of hospitals hereafter, communities should be selected which are not already abundantly or overabundantly supplied. From these statistics it can be ascertained which communities are in greater need of hospitals.

MEDICAL COLLEGES

As shown in previous reports, the Council's work with medical colleges has aided largely in reducing an abnormal oversupply to a number which is still more than adequate to meet the requirements of the country. Instead of there being 162 medical schools, which was the case in 1906, there are now 84 institutions. This reduction was brought about

TABLE 2.—HOSPITALS SHOWN BY STATES IN DISTRICT GROUPS

State	Area, Square Miles	Square Miles per Hospital	Ratio of Beds to Population	Percentage of Beds Occupied	Percentage of Counties With No Hospitals
North Atlantic States					
Maine	29,895	695	289	69	12.5
New Hampshire	9,031	291	328	69	0.0
Vermont	9,124	415	470	69	28.6
Massachusetts	8,039	42	254	63	7.2
Rhode Island	1,067	56	289	75	40.0
Connecticut	4,899	100	312	73	0.0
New York	47,654	129	185	68	13.1
New Jersey	7,514	77	239	59	9.5
Pennsylvania	44,832	165	286	69	20.9
Totals	161,976	148	242	67	15.3
South Atlantic States					
Delaware	1,965	281	444	66	66.7
Maryland	9,941	393	321	71	45.8
Dist. of Col.	60	3	165	73	0.0
Virginia	40,982	559	484	67	71.0
West Virginia	24,022	479	449	59	50.9
North Carolina	48,740	625	761	63	69.0
South Carolina	30,495	782	881	63	60.0
Georgia	58,725	1,022	897	65	81.6
Florida	54,861	1,483	583	56	76.0
Totals	269,971	650	508	65	68.4
North Central States					
Ohio	40,740	259	288	68	37.5
Indiana	36,045	337	340	68	42.4
Illinois	56,043	278	297	66	41.2
Michigan	57,480	414	308	69	42.2
Wisconsin	55,256	428	348	66	36.6
Minnesota	80,858	484	236	65	38.7
Iowa	55,586	478	277	65	43.4
Missouri	68,727	729	431	64	77.4
North Dakota	70,183	1,755	393	64	54.7
South Dakota	76,808	2,961	321	61	69.6
Nebraska	76,808	1,113	369	66	62.4
Kansas	81,774	919	405	62	57.1
Totals	756,308	536	355	66	62.0
South Central States					
Kentucky	40,181	638	653	64	72.3
Tennessee	41,687	744	679	66	77.1
Alabama	51,270	1,047	767	49	74.6
Mississippi	46,362	1,104	1,054	66	73.2
Louisiana	45,409	1,195	807	74	75.0
Texas	262,398	1,874	617	58	80.6
Arkansas	52,525	2,539	857	48	76.0
Oklahoma	69,414	1,767	980	58	65.0
Totals	609,255	1,248	705	61	73.8
Western States					
Montana	146,201	3,178	230	59	38.4
Wyoming	97,594	4,436	278	72	32.3
Colorado	103,658	1,481	198	72	53.9
New Mexico	122,503	3,403	237	66	66.4
Arizona	112,810	2,559	195	59	14.3
Utah	82,184	5,479	430	63	60.0
Nevada	109,821	5,780	139	48	18.7
Idaho	83,354	2,977	430	54	63.4
Washington	66,836	798	243	69	38.4
Oregon	95,607	2,078	313	67	36.1
California	155,652	741	210	76	20.7
Totals	1,177,220	1,893	211	69	41.4
All states	2,973,860	741	349	67	56.9

largely through the merger of two or more schools existing in each of several cities and in the closing of others, most of which were of low grade. As to entrance requirements, however, instead of there being only four institutions requiring for admission any college work, now seventy-six of the eighty-four require two or more years of collegiate work in addition to a high school education. This increase in entrance requirements, meanwhile, is merely an index of the improvements which have taken place in other respects. The educational standards of medical colleges in the United States are now on a par with, or in excess of, those in other leading nations. This country also has an increasing number of medical schools which, from the standpoint of teachers, laboratories, equipment and clinical facilities, are fully equal to the best medical schools abroad. Reports indicate that three other medical schools will not reopen next fall which will further reduce the number of medical colleges to eighty-one.

MEDICAL STUDENTS

Under the low education standards which were so general among medical schools in 1904 under the special efforts and inducements to increase the enrolments, and the sharp competition between various schools for students, it was not surprising that the total registration in medical schools in that year reached the maximum and 28,142 students were enrolled. Here, as in the case with medical colleges, the supply was abnormally large. With the rapidly increasing entrance requirements and the marked reduction in the number of medical schools it was expected that the number of students would be greatly reduced. The enrolment reached its lowest ebb in 1919 when 13,052 students were enrolled. The enrolment for 1920 was 14,088 and, on the basis of reports received from all but five colleges, the enrolment for 1920-1921 is approximately 14,850.

TABLE 3.—LOWEST EBB IN ENROLMENTS OF MEDICAL STUDENTS

	1st Year	2d Year	3d Year	4th Year	5th Year	Total
1913-14	4,684	3,681	3,807	3,655	...	16,507
1914-15	3,873	3,919	3,675	3,884	...	14,891
1915-16	3,592	3,604	3,559	3,727	...	14,022
1916-17	4,107	3,117	2,888	3,674	...	13,784
1917-18	4,282	3,521	2,899	2,983	...	13,630
1918-19	3,104	3,587	3,272	2,987	122	13,052
1919-20	3,234	2,837	3,464	3,962	290	14,088
1920-21	4,860	3,584	2,844	3,370	392	14,850

As shown in Table 3 the lowest ebb in the numbers of medical students, which can be calculated as due to the increased requirements for admission to medical schools, began with the first-year class in 1914-1915, ending with the lowest total enrolment in the session of 1918-1919. This low ebb is indicated by the heavy line under the totals in the various classes between those two dates. A still lower ebb in the individual classes, indicated by the light line underscoring, began with the freshman class in the session of 1918-1919. This was due clearly to the volunteering or drafting of medical students during the war. This reduction, however, was not sufficient to affect the total enrolment, which shows a continued increase since 1918-1919.

AGE OF STUDENTS ENTERING MEDICAL SCHOOLS IN 1920

Reports obtained from the first year medical students enrolled in seventy-six of the eighty-four colleges in the fall of 1920 totaled 4,532, and of these 1,076, or 24 per cent., were between the ages of 17 and 20; 2,130, or 47 per cent., were between the ages of 21 and 23; 1,013, or 22 per cent., were between the ages of 24 and 27, and 313, or 7 per cent., were 28 years of age or over. Three thousand two hundred and six, or 71 per cent., therefore, were under 24 years of age. This indicates that four years later on completing their medical course, 3,206 students will be from 24 to 27 years of age, while 1,326 or 29 per cent., will be 28 years of age or over. In this connection it is interesting to know that of these 4,532 students 2,472, or 55 per cent., presented in addition to a four-year high school education two years of premedical college work; 1,059, or 23 per cent., presented three years of college work, and 1,002, or 22 per cent., presented four years of college work or had obtained degrees. Every one of the 4,532 reported had two or more years of premedical college work.

TABLE 4.—AGES OF FIRST YEAR STUDENTS ENTERING MEDICAL COLLEGES IN THE SESSION OF 1920-21

Ages on Entering	Number of Students	Percentage of All 1st Year Students	Minimum Age at Graduation
17 to 20	1,076	24	21 to 24
21 to 23	2,130	47	25 to 27
24 to 27	1,013	22	28 to 31
28 and over	313	7	32 and over
Total.....	4,532	100	

MEDICAL GRADUATES

Under the low requirements and general conditions prevailing among medical schools in 1904 the number of graduates in that year reached the maximum when 5,747 medical students were graduated. Here, again, under the higher entrance requirements and the reduced number of medical schools, a rapid reduction took place until in 1919 the lowest ebb was reached and in that year 2,656 were graduated. The total number of graduates in 1920 was increased to 3,047 and an estimate for the year 1920-1921 indicates that approximately 3,350 medical students will receive their degrees. It is interesting to know, however, that the percentage of graduates from Class A medical schools[1] has increased from 64 per cent. in 1913 to 88 per cent. in 1920; that the percentage of graduates from Class B colleges has decreased from 24 per cent. in 1913 to 5 per cent. in 1920, and from Class C colleges the reduction has been from 26 per cent. in 1913 to 5 per cent. in 1920. Seven Class C medical colleges still exist, of which three are in Missouri, two in Massachusetts and one each in Illinois and Tennessee.

MEDICAL LICENSURE

During the last four years in the State Board Number of THE JOURNAL, the Council has included a table (See Table 5) showing for each state the numbers of physicians registered who graduated from medical schools rated, respectively, in Classes A, B and C. This table deserves careful study by the members of the House of Delegates, so that the attention of each state medical association may be called to the conditions found. Six states stand out prominently as having registered large numbers of graduates from Class C medical schools or as having granted physicians' licenses to osteopaths. These are Arkansas, California, Colorado, Illinois, Massachusetts and Texas. In Arkansas, the fault is with the medical practice act which has divided the authority for the licensing of physicians between three separate boards and the graduates of Class C colleges were all registered by the Board of Eclectic Medical Examiners. The numbers in California, Colorado and Texas are increased considerably by the granting of physicians' licenses to osteopaths regardless of their lower educational and professional qualifications. In Illinois and Massachusetts the numbers are due to the presence in those states of Class C medical schools which are still recognized by the licensing boards of those states. In Massachusetts, however, the board has no option in the matter, in spite of repeated attempts which have been made to secure that authority. In Missouri, unfortunately, an amendment to the practice act was passed this spring and signed by the Governor, in spite of most vigorous protests on the part of the medical profession, the universities and many prominent citizens of that state, which takes away from the licensing board the authority to refuse recognition to the three Class C medical schools in that state. Meanwhile, the number of states in which the licensing boards are refusing recognition to low type medical colleges has increased since 1914 from thirty-two to forty-four states. In Table 5, candidates who graduated prior to 1907 are classed as miscellaneous since medical schools were not rated by the Council

1. See THE JOURNAL A. M. A., Aug. 7, 1920, Table 12, p. 387.

until 1907. Graduates of foreign medical schools are also included among miscellaneous excepting those of Canadian colleges which are included in the Council's classification.

It is encouraging to note (see Table 6) that during the last four years both the number and percentage of Class A graduates who have been registered have considerably increased while for the Class B and Class C graduates the numbers and percentages have decidedly decreased. The percentage of miscellaneous graduates remains about the same for the last three years.

MEASURES NEEDED TO INSURE PERMANENCY

The success in bringing about the reorganization of medical education has been due largely to the united action of all agencies interested in developing medical education through the Council's Annual Conferences on Medical Education and Licensure but more particularly to the splendid cooperation and aid which the Council has received from officers of medical schools and the secretaries of state licensing boards. Along with the improvements in medical education there has been a gradual improvement in the educational standards of state licensing boards and a better enforcement of medical practice laws.

TABLE 6.—SOURCE OF PHYSICIANS LICENSED IN THREE YEARS

Year	Medical Colleges in Class A		Class B		Class C		Miscellaneous and Foreign Colleges		Total
	Number	Per Cent.	Number	Per Cent.	Number	Per Cent.	Number	Per Cent.	
1917	3,309	62.1	988	18.2	297	5.3	769	14.4	5,423
1918	2,456	56.7	692	16.3	342	8.2	705	16.8	4,195
1919	4,208	66.4	872	13.2	278	4.2	1,066	16.2	6,584
1920	4,567	70.2	621	9.6	275	4.2	1,054	16.0	6,557
Totals	14,780	65.0	3,173	14.0	1,192	5.2	3,594	15.8	22,749

TABLE 5.—CHARACTER OF PHYSICIANS LICENSED IN 1920

Marginal Number	STATES	By Examination					By Reciprocity or Credentials					Totals Registered from Medical Colleges in Class					Grand Totals	Marginal Number
		Medical Colleges in Class				Totals	Medical Colleges in Class				Totals							
		A	B	C	Misc.		A	B	C	Misc.		A	B	C	Misc.			
1	Alabama	27	6	1	0	34	12	4	2	2	20	39	10	3	2	54	1	1
2	Arizona	21	3	0	9	33	0	0	0	0	0	21	3	0	9	33	2	2
3	Arkansas	15	3	26[1]	4	48	21	13	5	15	49	36	16	28[1]	19	97	3	3
4	California	79	27	28[2]	16	150	186	42	33	240	501	265	69	61[2]	256	651	4	4
5	Colorado	20	1	22[3]	3	56	37	6	1	38	82	57	7	23[3]	41	138	5	5
6	Connecticut	89	3	0	4	97	3	1	1	6	11	92	4	1	10	108	6	6
7	Delaware	3	3	0	0	6	0	0	1	0	1	3	3	1	0	7	7	7
8	District of Columbia	54	4	1	2	61	12	0	0	4	16	66	4	1	6	77	8	8
9	Florida	33	5	3	31	72	0	0	0	0	0	33	5	3	31	72	9	9
10	Georgia	52	15	0	3	70	24	10	1	9	44	76	25	1	12	114	10	10
11	Idaho	19	2	0	6	27	12	0	0	2	14	31	2	0	8	41	11	11
12	Illinois	284	34	33	13	404	46	20	0	12	78	330	54	33	25	482	12	12
13	Indiana	59	5	0	0	64	44	22	2	26	94	103	27	2	26	158	13	13
14	Iowa	71	2	0	3	76	32	13	2	9	56	103	15	2	12	132	14	14
15	Kansas	31	0	0	1	32	31	10	2	21	64	62	10	2	22	96	15	15
16	Kentucky	24	6	0	0	30	11	2	3	5	21	35	8	3	5	51	16	16
17	Louisiana	73	4	0	4	81	9	2	0	1	12	82	6	0	5	93	17	17
18	Maine	21	0	0	3	24	2	0	0	4	6	23	0	0	7	30	18	18
19	Maryland	103	1	0	3	107	27	2	3	25	57	130	3	3	28	164	19	19
20	Massachusetts	184	9	19	5	217	0	0	0	0	0	184	9	19	5	217	20	20
21	Michigan	145	11	1	4	161	70	13	0	43	126	215	24	1	47	287	21	21
22	Minnesota	89	0	0	1	90	57	14	1	12	84	146	14	1	13	174	22	22
23	Mississippi	34	4	1	1	40	10	0	0	7	17	44	4	1	8	57	23	23
24	Missouri	94	14	4	5	117	33	18	1	8	60	127	32	5	13	177	24	24
25	Montana	17	2	1	5	25	1	0	0	0	1	18	2	1	5	26	25	25
26	Nebraska	25	1	0	1	27	19	16	2	11	48	44	17	2	12	75	26	26
27	Nevada	6	1	3	4	14	4	1	3	9	17	10	2	6	13	31	27	27
28	New Hampshire	6	0	0	0	6	11	0	0	4	15	17	0	0	4	21	28	28
29	New Jersey	33	2	1	2	38	78	9	6	40	133	111	11	7	42	171	29	29
30	New Mexico	0	3	0	0	3	14	4	0	25	43	14	7	0	25	46	30	30
31	New York	641	46	0	16	703	34	9	0	33	76	675	55	0	49	779	31	31
32	North Carolina	64	6	0	0	70	27	6	2	9	44	91	12	2	9	114	32	32
33	North Dakota	10	2	0	1	13	13	1	0	1	15	23	3	0	2	28	33	33
34	Ohio	144	33	0	2	179	84	31	0	37	132	228	44	0	39	311	34	34
35	Oklahoma	10	1	2	1	14	25	12	3	17	57	35	13	5	18	71	35	35
36	Oregon	40	5	2	14	61	1	1	1	1	4	41	6	3	15	65	36	36
37	Pennsylvania	206	16	1	5	228	23	0	0	5	28	229	16	1	10	256	37	37
38	Rhode Island	20	1	1	3	25	0	0	0	0	0	20	1	1	3	25	38	38
39	South Carolina	29	0	1	3	33	7	1	0	0	8	36	1	1	3	41	39	39
40	South Dakota	25	2	2	9	38	8	1	0	2	11	33	3	2	11	49	40	40
41	Tennessee	53	24	2	3	82	1	0	0	0	1	54	24	2	3	83	41	41
42	Texas	100	0	3[4]	0	103	59	16	25	68	168	159	16	28[4]	68	271	42	42
43	Utah	15	0	2	1	18	9	0	0	5	14	24	0	2	6	32	43	43
44	Vermont	18	0	0	0	18	2	0	0	0	2	20	0	0	0	20	44	44
45	Virginia	50	2	1	1	55	20	4	0	6	30	70	7	1	7	85	45	45
46	Washington	16	1	1	6	24	44	7	2	50	103	60	8	3	56	127	46	46
47	West Virginia	34	5	1	1	41	37	5	3	10	54	71	10	4	11	95	47	47
48	Wisconsin	58	2	0	5	65	40	10	1	9	60	98	12	1	14	125	48	48
49	Wyoming	4	2	0	3	9	13	4	1	7	25	17	6	1	10	34	49	49
50	U. S. Territories and Possessions	25	0	1	7	33	0	0	0	?	?	25	0	1	9	35	50	50
	Totals	3,344	321	174	214	4,053	1,253	310	101	840	2,504	4,597	631	275	1,054	6,557		

1. Of the 97 physicians licensed in Arkansas, the Regular Board licensed by examination 15 Class A, 3 Class B and 2 miscellaneous graduates and by reciprocity 21 Class A, 13 Class B and 15 miscellaneous graduates, a total of 69. The Eclectic Board licensed by examination all of the 26 Class C graduates and 2 of the miscellaneous graduates. The Homeopathic Board reported no candidates licensed either by examination or by reciprocity.

2. Of the 61 graduates of Class C colleges licensed in California, 12 were graduates of osteopathic colleges which are not generally recognized as medical colleges by state licensing boards. Altogether, 27 osteopaths were admitted to the examination for licensure as physicians and 12 were licensed.

3. Of the 33 graduates of Class C colleges licensed in Colorado, 17 were graduates of osteopathic colleges, institutions inferior in most respects to Class C medical schools which are reported as not recognized in Colorado. Thirty-two osteopaths were admitted to the examination for physicians and 17 were so licensed.

4. Texas licensed 3 Class C graduates by examination (although Class C colleges are reported as not recognized) and 25 Class C graduates (excluding 28 osteopaths) were licensed by reciprocity, a total of 28.

This table shows the classification of the colleges from which most of the physicians graduated who were licensed in 1920. Graduates of colleges which became extinct prior to 1907 who were examined, and all reciprocity licentiates who graduated prior to 1907, are unclassified and included under "miscellaneous" since it was in 1907 that the Council on Medical Education and Hospitals completed its first classification of all medical colleges.

It will be seen that twelve states accepted altogether 31 Class C graduates through reciprocity where they did not license any by examination. On the whole, however, 174 Class C graduates were licensed by examination and 101 were registered through reciprocity.

By both examination and reciprocity, the largest numbers of Class C graduates were licensed in California, 61; Colorado and Illinois, each 23; Texas, 28; Arkansas, 26, and Massachusetts, 19. The Texas figures would be increased by 26 if the osteopaths who were registered by reciprocity and granted licenses as physicians were included. The largest numbers of Class B graduates were licensed in California, 69; New York, 55; Illinois, 54; Ohio, 44, and Missouri, 32.

Of all physicians licensed 4,597, or 70.3 per cent., were graduates of Class A medical schools; 631, or 9.6 per cent., from Class B schools; 275, or 4.2 per cent., from Class C schools, and 1,054, or 16 per cent., from foreign and miscellaneous colleges.

The extensive improvements in medical colleges since 1904 have encouraged the hope that after a few more years the entire output from medical colleges will be limited to physicians thoroughly qualified as regards both preliminary and professional education. An increasing number of licensing boards have refused recognition to extremely low-grade medical colleges and all but a few which are strongly entrenched politically have been exterminated.

MENACE OF MEDICAL CULTS

In recent years, however, the progress in medical licensure has been menaced by the efforts of certain cults, the more aggressive of which have been the osteopaths and chiropractors. Under the claim that since they "did not use drugs or perform surgical operations" they "were not practicing medicine," these healers have succeeded in securing legislation in a number of states providing for separate boards of examiners, or special clauses in the medical laws, permitting them to practice and exempting them from the educational qualifications which physicians are required to possess. Through their central organizations also these cults are carrying on a systematic and persistent campaign of advertising in order to create public sentiment in their favor. The medical profession is the only organization which is in position to expose the fallacies of their claims and point out their lack of the essential knowledge and training required for any intelligent care of the sick. This is why much of their advertising is devoted to efforts to discredit the medical profession. The only logical and effective argument against them is not to the osteopaths and chiropractors as such, but to their lack of adequate educational qualifications—to their lack of training in the modern methods of diagnosis, treatment and prevention of diseases. Such good as there may be in the character of treatment they employ will in no way be reduced if those using such methods are first required to possess the educational qualifications which will make them safe practitioners of the healing art.

The chief danger from these cults at present—and which is the chief reason for referring to them—is through their efforts to break down medical practice laws and the confusion that they are causing in medical licensure. As might be expected, the osteopaths, after having secured authority to practice under limited licenses, are now demanding all the privileges which physicians enjoy. Although licensed under the claim that they "did not use drugs," they later have sought registration under the Harrison Law for permission to use narcotics—the most dangerous of drugs. During the recent session of the various legislatures they have been demanding the right to perform surgical operations and exercise all other functions now exercised only by qualified physicians, including the right to sign death certificates. These demands cannot logically be objected to if at the same time they are willing to show that they possess the same educational qualifications as are required of physicians. But this is not the case; they are still insisting on lower standards of both preliminary and professional training.

Logically, no one should be authorized to treat the sick by any method unless he has had a thorough training in the fundamental medical sciences. No one should be granted "limited licenses." When a patient in an emergency calls a "doctor" he needs one who is competent to use whatever remedies or method of treatment the particular ailment requires. These essentials are not provided in a practitioner who is neither qualified nor legally authorized to practice medicine in all its branches. The legal error was made when these cultists were authorized by legislation to practice under limited licenses. We know of no parallel to this in the medical practice laws of any other country.

CORRECTIVE LEGISLATION ESSENTIAL

During the last year, however, there have been evidences of a clearer vision on the part of our legislators, and the laws enacted in several states have been favorable to medical education. Efforts to secure separate boards in several states were defeated, while in New Jersey a law was passed abolishing a chiropractic board which had been illogically established by the action of the previous legislature. A similar corrective law should be passed in each of several states abolishing all special boards created by previous legislatures. In each state there should be established one educational standard, administered by a single licensing board by which everyone who is authorized to practice the healing art shall be required to prove that he has secured a satisfactory training in the fundamentals of medicine. Osteopathic and chiropractic colleges, furthermore, should be inspected and classified in accordance with the same standards of measurement now being applied in medical schools and by the same boards who pass on medical schools. In Indiana, the same standards of preliminary and professional education are applied by the Board of Medical Examiners to osteopaths and chiropractors as are applied to physicians. In some states the osteopaths are required to take the same comparatively easy examination that is required of physicians but they are not required to have the same preliminary qualifications which all physicians are now required to possess. What the medical profession has a right to demand is a square deal and equal qualifications for all and that there shall be no discrimination favoring any individual or group of individuals who are engaged in the healing art. It is desirable that all legislation affecting the practice of medicine in future shall support the present reasonably high standards of medical education, for which, in the last fifteen years, the various agencies interested in medical education have successfully struggled.

SUMMARY

1. One of the most effective methods of work carried on by the Council on Medical Education and Hospitals has been the annual conference on medical education which resulted in bringing about a unanimity of action between the various agencies working for the improvement of medical education.

2. The work of the Council has expanded to cover preliminary education, the undergraduate medical curriculum, hospitals in their relation to clinical teaching and the intern year, graduate medical education, and graduate courses for the training of specialists. Last year, through the action of the House of Delegates, the Council's function in relation to hospitals was broadened to include the general survey of all hospitals.

3. The reorganization of medical education, which was the original object for which the Council on Medical Education was created, has been practically completed. With the broadening of the Council's function, however, there still remains much to do.

4. There is but one science of medicine, which cannot be subdivided into specialties or limited to the eye, the heart, the stomach or other region; it covers the entire human body in health and in disease.

5. A careful study of the present situation shows an excessive trend towards specialism which is largely due to the present faulty undergraduate curriculum. Furthermore, many are assuming the function of specialists who have not obtained adequate training in their chosen specialty.

6. The undergraduate medical curriculum should be reorganized so as to give the graduate a more thorough grounding as a general practitioner of medicine and less emphasis should be given to certain specialties.

7. Medical students should have their attention especially called to the unusual opportunities for study and research and the other advantages of general practice, as well as to the increased importance of the general practice of medicine.

8. It is in the practice, or art of medicine where specialization properly comes and training in each specialty comes properly in graduate courses. Minimum suggestive standards of instruction in the various specialties were presented in a series of reports at the Council's conference in March, 1921.

9. There are dangers in specialism unless (*a*) the specialist has had a broad training and experience in general medicine as a foundation, or (*b*) unless patients sent to specialists are first carefully examined by a broadly trained general practitioner, who in a general way controls the diagnosis and therapy in the case.

10. The hospital statistics published in the recent Hospital Number of THE JOURNAL show that 56 per cent. of all counties in the United States do not have hospitals. Indications

are that the chief trouble in connection with the hospital supply in the United States is inadequate distribution.

11. The enrolment of medical students reached its lowest ebb in 1919, when 13,052 students were enrolled. In 1920, there were 14,088 and, based on reports received from most colleges, the present enrolment is approximately 14,850.

12. A study of the records of freshman students in the fall of 1920 shows that on entering the medical school, 1,076, or 24 per cent., were between the ages of 17 and 20; 2,130, or 47 per cent., were between the ages of 21 and 23; 1,013, or 22 per cent., were between the ages of 24 and 27, and 313, or 7 per cent., were 28 years of age or over. It is noteworthy that 3,206, or 71 per cent., were under 24 years of age, which will make them under 28 years of age on completing their medical course.

13. Statistics of medical licensure show that five states are registering unusually large numbers of graduates of low-grade medical colleges or granting physicians' licenses to osteopaths.

14. During the last four years, the percentage of Class A graduates who were licensed increased from 62 to 70 per cent., while of Class B graduates the number decreased from 18 to 10 per cent., and of Class C graduates the number decreased from 5 to 4 per cent. Approximately 16 per cent. of those licensed each year graduated before medical colleges were classified by the Council or graduated from foreign medical schools.

15. There is special need that the medical profession develop some method by which the great possibilities of modern medicine, in the way of diagnosis, treatment and prevention of diseases, may be brought within the reach of all people. This function, it is believed, should be performed by the medical profession and not through any form of state medicine.

16. In several states laws have been enacted creating two or more separate boards having to do with the licensing of those who are to treat the sick. This is an illogical arrangement. It is urged that in each of these states corrective legislation be enacted—as was done this year in New Jersey whereby a single board of competent examiners may be substituted for the two or more now existing. It is further urged that the law also provide a standard of preliminary and professional training for all practitioners which will uphold the standard of medical education for which the various agencies interested in medical education have successfully struggled during the last fifteen years.

Respectfully submitted,

Council on Medical Education and Hospitals.

Arthur Dean Bevan, Chairman, Merritte W. Ireland,
William D. Haggard, Ray Lyman Wilbur,
William Pepper, N. P. Colwell, Secretary.

Report of the Council on Scientific Assembly

Dr. J. S. Horsley, Virginia, Chairman, presented the report of the Council on Scientific Assembly, which was referred to the Reference Committee on Sections and Section Work.

The report follows:

To the Members of the House of Delegates of the American Medical Association:

On December 10, the Council held a conference with the secretaries of the several sections at the headquarters of the Association. All the sections were represented either by their secretaries or by one of the other executive officers. All the members of the Council were present with the exception of Dr. Roger S. Morris and the President-Elect who were detained by urgent personal business.

The assignment for meeting hours of the different sections for the 1921 annual session was announced as follows:

Sections to convene at 9 o'clock in the morning of Wednesday, Thursday and Friday, June 8, 9 and 10: Practice of Medicine; Obstetrics, Gynecology and Abdominal Surgery; Laryngology, Otology and Rhinology; Pathology and Physiology; Stomatology; Nervous and Mental Diseases; Urology; and Preventive Medicine and Public Health.

Sections to convene at 2 o'clock in the afternoon of each of the foregoing days: Surgery, General and Abdominal; Ophthalmology; Diseases of Children; Pharmacology and Therapeutics; Dermatology and Syphilology; Orthopedic Surgery; Gastro-Enterology and Proctology; and a meeting of the Section on Miscellaneous Topics to present a program on anesthesia.

The members of the Executive Committee of the Board of Trustees were also in attendance at the conference and plans were formulated so that, with the cooperation of the officers of the sections, it is hoped the scientific Exhibit will be made of greater interest and value to those who attend the annual sessions. These plans include the arranging of the Scientific Exhibit in three general divisions: One presenting subjects falling within the scope of pathology and physiology; another, medical topics; and the third, surgical subjects. With the carrying out of these plans for the Scientific Exhibit, it is hoped that much time in section meetings now occupied with demonstrations can be utilized in discussions, and that the demonstrations can be presented more effectively at stated hours in the Scientific Exhibit, so conserving the time of the section meetings and enhancing the educational value of the Scientific Exhibit. It was the general consensus of opinion of all in attendance at the conference that a closer cooperation between the sections and the Scientific Exhibit is possible and advisable, and the officers of the sections expressed their willingness to assist in assembling and presenting material in the Scientific Exhibit. While it may not be possible to carry out this close cooperation between the sections and the Scientific Assembly at the 1921 annual session, an effort is being made to begin this work at the Boston Session with the hope that the plans may be improved from year to year until the exhibit and the section programs shall fully complement, one the other.

The Council on Scientific Assembly has been advised that a number of members of the organization and Fellows of the Scientific Assembly desire the House of Delegates to create a Section on Anesthesia. Communications have been transmitted also to the Council through the office of the Secretary of the Association suggesting that sections shall be established on History of Medicine, on Legal Medicine, on Anatomy and on Industrial Medicine. The only formal petition, however, requesting the establishment of a new section is for a Section on Anesthesia. The Council has given careful consideration to this petition and is unanimous in its opinion that no new sections should be created until after it is demonstrated that there is an actual demand for a new division of the Scientific Assembly.

The Council proposes to use the meetings falling within the Section on Miscellaneous Topics for the presentation of programs which are desired by considerable numbers of Fellows. It will be noted that the Council has arranged that one meeting of the Section on Miscellaneous Topics this year shall be devoted to a program on anesthesia.

It is recommended to the House of Delegates that no new section shall be created this year. The By-Laws make it possible for the Council on Scientific Assembly to use the meetings of the Section on Miscellaneous Topics for programs presenting one or more of the subjects for which sections are asked. These or similar topics can be discussed from year to year without the establishment of a separate section and without unduly complicating the present arrangement of the Scientific Assembly. Any considerable group of Fellows who wish to develop a proposed section may utilize the Section on Miscellaneous Topics for several years and if a real need for a new section appears, it may then be created. In other words, the Section on Miscellaneous Topics may serve as an experimental laboratory to try out over a period of years the desirability of establishing a new section. Adding another section to the Scientific Assembly involves a very grave responsibility and one which should not be lightly undertaken.

Our present plan has the advantage of continuity of section work in the programs of succeeding years. This has been gradually developed to the advantage of our scientific work during the past decade through the practice, which the sections have established, of electing the secretary for a term of at least three years. The Council feels that it would be a mistake to make any radical changes in the method of con-

ducting our Scientific Assembly, but if additional sections are to be created, it seems evident that some arrangement must be made so that a responsible council or body will have entire charge of the Scientific Assembly and authority to modify the grouping of papers in different sections for each year's program.

Respectively submitted,

J. SHELTON HORSLEY, Chairman.
E. S. JUDD.
ROGER S. MORRIS.
F. P. GENGENBACH.
JOHN E. LANE.

Ex-officio.

HUBERT WORK, President-Elect.
GEORGE H. SIMMONS,
Editor and General Manager.
ALEXANDER R. CRAIG, Secretary.

ADDENDUM

(Refer page 1655, preceding Reports of Officers)

The Vice-Speaker, Dr. F. C. Warnshuis, Michigan, took the chair, and the Speaker delivered an address, which was referred to the Reference Committee on Reports.

Address of the Speaker, Dr. Dwight H. Murray

To the House of Delegates of the American Medical Association:

Please be assured that I most deeply appreciate the honor of presiding over the House of Delegates. There is no more important medical legislative body in the world.

A PUBLIC HEALTH JOURNAL

On several occasions in the past, the question of a lay or public health journal has been discussed—one that would be an authoritative means of communication, a connecting link, between the medical profession and the laity, printed for the layman and proposing to enlighten him on matters of medical interest to him, dealing with preventive medicine, social hygiene, medical survey of the industries, proposed medical legislation, sanitation, communicable diseases and like topics, and also giving a better understanding of the high aims of the profession seeking for the protection of the people against quacks, medical charlatans, and ill conceived medical laws.

While the Board of Trustees has this under consideration, it has not yet arranged for such publication; there are important questions that must be solved in connection with such an undertaking, not the least of which is its financing and editorship.

I have known that the Board of Trustees is keenly alive to its importance, and as soon as it is possible I am confident we shall have a successful issue of this problem.

Your Speaker has in mind two plans, one or the other of which might effect an earlier solution of the lay journal, if this House and the Board of Trustees would deem it wise to take it up actively with the Surgeon-General of the Public Health Service, which is now doing some of this work on its own account; and, if practicable, the question of cost of printing and postage may be eliminated, thus making it quite possible to put this plan into operation at a much earlier time than could be done if the American Medical Association were to wait until its resources were sufficient.

As I said, the Public Health Service is already doing part of this work; why not propose to it that this Association take up a part of the editorial work by the appointment of capable medical men and specialists in different districts of the United States who may be called consulting editors? The press work should be done by the Public Health Service and copies franked to all members of the law-making bodies of every state and to members of Congress so that they shall be well informed of the needs of the laity and the aims of the medical profession, from eminently trustworthy sources, to the great benefit of both.

For general distribution, I would propose some arrangement with the public press to publish a sheet dealing with these matters in their Sunday or other editions, and the daily papers to publish a column of medical questions and answers of interest to all. Some of our great newspapers are already publishing, at considerable expense, medical editorials dealing with subjects in which the laity is interested, as well as copying some of the health questions and answers put out through the Public Health Service. The details of this cooperative plan could be worked out by a committee consisting of the Surgeon-General of the United States Public Health Service, members of our Board of Trustees, and this House of Delegates.

Possibly the present law would not allow such cooperation between the Public Health Service and the American Medical Association, in which event perhaps enabling legislation might be secured in order that the people at large may have the benefit of such advice as could in this way be given to them by cooperation between these two organizations.

Protection is the one and only thing that we get from our government. Surely this kind of protection is the very best and if properly presented would do away with much if not all thought of so-called health insurance and other paternalistic plans that are continually being brought forward by some misguided philanthropists. Education in all fundamentals of hygiene and health matters is the greatest protective measure, and why should we not, through Congress, give this protection to the people at large?

Let Congress be memorialized if necessary, and follow it up actively to obtain a full department of public health, as has been recommended by others, which, if granted would solve the public health journal question.

The influence of more than 85,000 members of this Association should have weight enough with their individual legislators to put such a law through without question.

The answer of the medical profession to the nation's need in time of war, when two out of every three medical men in this country offered their services in some capacity, ought to vouchsafe the much needed department of health; they did a service worth while, at great personal sacrifice. Surely these men can be trusted with the management of such a department.

Another plan that might be followed in case of the non-feasibility of the one mentioned, that would not need a journal, would be to appoint editors and create a demand for a medical feature section of the 900 great Sunday papers in this country, taking a different subject or different phases of a popular subject for each issue, e. g., child welfare, tuberculosis, cancer, personal hygiene, communicable diseases, and like topics. Let one associate editor be responsible for one feature section each three months.

It should be ready and in the hands of the publisher at least two weeks before, and released to only one paper in a given section of the country. When this has been made popular, a demand will have been created that cannot be satisfied except by giving more, and our public health journal will be an established fact without large expense and will be read by millions. It might be made so popular that it would finance itself.

FIELD SECRETARIES

Another matter that is being thoughtfully considered is the employment of one or more field secretaries, who might be of great assistance in building up our association by putting all medical men in closer touch with it and letting the different branches know more of the important details of the working of our efficient home office in Chicago. I bespeak for that home office a visit from each of you at the first opportunity.

In order to learn what the attitude of our constituent members is on the two questions mentioned above I have consulted by letter the various state societies through their secretaries and have received many answers; with one exception, both these projects are unanimously endorsed, to be made effective when our resources warrant.

DIGEST OF WORK TO BE PRESENTED TO STATE SOCIETIES

It seems to your Speaker that very few if any misunderstandings between the parent association and its constituents would ever exist if the delegates from every state render a written digest of the work done in this House, giving reasons for such actions at the following meetings of the state societies, and in addition send a copy of such report to be read at the next county society meeting in every state after our annual session.

Such action would make for a closer relationship between the American Medical Association and its constituent societies. This written digest of our work should supplement the report made by the state secretaries in their return from their annual meeting at the home office in Chicago.

The activities of the American Medical Association are many, and the members of this House are here for serious business; it should be cared for with even greater diligence than our own private affairs.

I therefore urge that each member of this House not only attend every session but that he pay such strict attention that he can explain to his home society the reasons for each action taken by the House.

MISLEADING ADVERTISEMENTS

A law was passed by the New York State Legislature at its last session that is destined to be a great help for the protection of the public from medical and advertising frauds; namely, an act to amend the penal law in relation to untrue and misleading advertisements. It is the uniform law covering false and misleading advertisements which has already been enacted in twenty-three states. In the opinion of the solicitor of the post-office department, which has been obtained for me by our president-elect, it covers a class of fraudulent advertisements that cannot be reached by the postal fraud statute. The bill was bitterly contested by a lobby of "patent medicine" venders, which is evidence enough in itself of the effect the bill should have if properly enforced. I believe this bill should be taken up actively by every state with the idea of having it enforced in all the states in which it is now a law, and assisting its promoters in having it passed in all other states. In New York State it becomes effective, Sept. 1, 1921. I have attached hereto the law itself and the opinion of the solicitor general of the post-office department. It seems to me that this law should provide for its enforcement through the office of the prosecuting attorney of every county, in all the states where it is now on the statutes. The sponsors of this bill and those interested in it could improve it by providing for its enforcement as above outlined.

Copy of letter from Solicitor General of Post-Office Department.

MEMORANDUM FOR DR. WORK

May 11, 1921.

I have examined the act of the New York Legislature "To amend the penal law, in relation to untrue and misleading advertisements," in the New York Assembly, Feb. 8, 1921, submitted to you by Dr. D. H. Murray with his letter of April 25, in connection with which you ask my opinion on Dr. Murray's inquiry as to whether this act will be sufficient authority for the suppression of many of the advertisements of quacks and some of the proprietary medicines that claim to do so much, and do so little.

I have made some inquiry as to the origin of the bill and find that it was introduced in the New York Legislature to amend the existing statute with reference to false advertising so as to conform the New York law to what is known as the "Printers' Ink Model Statute," a proposed uniform law covering false and misleading advertisements which has already been enacted in twenty-three states. The proposed act is, in my judgment, sufficiently broad to cover the character of advertisements mentioned by Dr. Murray, and in fact was designed and urged to cover that class of fraudulent advertisements which cannot be reached by the postal fraud statutes—that is to say, where the misleading advertisements are sent through the mails but the fraudulent nostrums, or other articles, are sold through drug stores and agents rather than through the mails.

I am advised that this bill was bitterly fought by a lobby of the patent medicine venders, but that it finally passed both the Senate and the Assembly of New York unanimously.

In my judgment it is a good piece of legislation and should have the support of every one interested in the suppression of false and misleading advertising.

The letter of Dr. Murray and the bill which he enclosed to you are returned herewith.

J. J. SOUTHERLAND,
Acting Solicitor.

AN ACT TO AMEND THE PENAL LAW, IN RELATION TO UNTRUE AND MISLEADING ADVERTISEMENTS

The People of the State of New York, represented in Senate and Assembly to enact as follows:

Section 1. Section four hundred and twenty-one of the penal law is hereby amended to read as follows:

No. 421. Untrue and misleading advertisements. (If a) Any person, firm, corporation or association, or agent or employe thereof who, with intent to sell or in any wise dispose of merchandise, real estate, securities, service, or anything offered by such person, firm, corporation, or association, or agent or employee thereof, directly or indirectly, to the public for sale or distribution, or with intent to increase the consumption thereof, or to induce the public in any manner to enter into any obligation relating thereto, or to acquire title thereto, or an interest therein (knowingly) makes, publishes, disseminates, circulates, or places before the public, or causes, directly or indirectly to be made, published, disseminated, circulated, or placed before the public, in this state, in a newspaper, magazine or other publication, or in the form of a book, notice, circular, pamphlet, letter, handbill, poster, bill, sign, placard, card, label, or tag, or in any other way an advertisement, announcement or statement of any sort regarding merchandise, securities, service or anything so offered to the public with advertisement contains any assertion, representation or statement of fact (that) which is untrue, deceptive or misleading (or that amounts to an offer to sell, barter, or exchange real estate by means of prizes, rewards, distinctions, or puzzle methods, such person, corporation or association, or the members of such firm, or the agent of such person, corporation, association or firm), shall be guilty of a misdemeanor (punishable by a fine of not less than twenty-five dollars nor more than one thousand dollars, or by imprisonment for not more than one year, or by both such fine and imprisonment).

2. This act shall take effect September first, nineteen hundred and twenty-one.

Reference Committees

The Speaker announced the following Reference Committee:

SECTIONS AND SECTION WORK

L. A. Yarbrough ..... Tennessee
Howard Fox ..... New York
Henri P. Linn ..... West Virginia
James S. McLester ..... Alabama
John Ridlon ..... Illinois

RULES AND ORDER OF BUSINESS

S. W. Welch ..... Alabama
E. A. Pray ..... North Dakota
Fred T. Kidder ..... Vermont
E. G. Jones ..... Georgia
Frederick T. Rogers ..... Rhode Island

MEDICAL EDUCATION

J. Rilus Eastman ..... Indiana
Joseph F. Seiler ..... U. S. Army
Grover Wende ..... New York
Isaac A. Abt ..... Illinois
John S. Helms ..... Florida

CONSTITUTION AND BY-LAWS

Rock Sleyster ..... Wisconsin
William F. Bacon ..... Pennsylvania
E. A. Hines ..... South Carolina
B. L. Bryant ..... Maine
N. J. Blackwood ..... U. S. Navy

LEGISLATION AND PUBLIC RELATIONS

J. H. J. Upham ..... Ohio
J. W. Bell ..... Minnesota
H. G. Stetson ..... Massachusetts
W. H. Seeman ..... Louisiana
G. E. Lambert ..... Washington

HYGIENE AND PUBLIC HEALTH

J. W. Schereschewsky ..... U. S. Public Health Service
W. R. Steiner ..... Connecticut
C. Van Zwalenberg ..... California
J. F. Highsmith ..... North Carolina
Arthur T. McCormack ..... Kentucky

REPORTS OF OFFICERS

Frederic E. Sondern ..... New York
J. N. Hall ..... Colorado
Holman Taylor ..... Texas
Franklin E. Murphy ..... Missouri
J. F. Burnham ..... Massachusetts

CREDENTIALS

H. B. Gibby ..... Pennsylvania
John C. Rockefellow ..... Iowa
D. E. Sullivan ..... New Hampshire
E. W. Spottswood ..... Montana
James W. May ..... Kansas

MISCELLANEOUS BUSINESS

Southgate Leigh ..... Virginia
William Gerry Morgan ..... District of Columbia
Ben R. McLellan ..... Ohio
R. L. Green ..... Illinois
A. W. Hornbogen ..... Michigan

Dr. Frederic E. Sondern, New York, moved that the appointments be approved.

Seconded and carried.

Remarks by President William C. Braisted,

The Speaker then introduced the President, who made the following address, which was referred to the Reference Committee on Reports of Officers.

Mr. Speaker and Members of the House of Delegates:

At the New Orleans session, as you will recall, I made a plea for harmony the coming year, and stated that we should extend the work in matters about which we learned during the war. The result of the year's work proves that there has been a feeling of intense harmony. I know of no disagreement or trouble of any kind that has marred the internal relations of this organization, and this has made me happy. I am in harmony with the organization in every way. It was my intention to review the important movements of the year, but I found that these were so many and were so well outlined in the programs of the various sections and in the reports of the different officers and the several councils that it is unnecessary for me to do so.

HEADQUARTERS OF THE ASSOCIATION

There are some things that I want to touch on, however, the first of which relates to three careful inspections I made as President, of the home office. I do not know how many of you have been through the home office. I assure you that a visit to the headquarters of the Association will amply repay any one of you. The home offices are the seats of intense energy, and splendid results have been accomplished, and particularly during the war. They have had their troubles, as we have had ours, almost to the breaking point, but I feel the officers and employees in the Association headquarters in Chicago, have stood by the Association so loyally and faithfully during the World War, that a vote of appreciation should be extended to them. I have taken pains to shake hands from the highest to the lowest employee, and have complimented them on the splendid work they have done.

MEMORIAL TO GENERAL GORGAS

I want to say a word or two on the Memorial to General Gorgas. General Gorgas did more than any other man to endear himself to the people all over the world. Through the initiative of President Forrest of Panama, a movement has been undertaken to establish a memorial to General Gorgas in Panama in the form of a research laboratory for tropical medicine. This movement has progressed to such an extent that we have the finances for building it and for furnishing ample equipment. This Association ought to be deeply interested in this movement, and I would urge that the members support it in every possible way.

PUBLIC WELFARE BILL

The next point I want to call attention to is the Department of Public Welfare Bill, which is one of the most important measures before the profession and the people, and I would urge you to give it special consideration. If it is found necessary to modify it before approving it, this should be done. I am informed by Brigadier General Sawyer that President Harding is deeply interested in this measure. If necessary, I would urge the appointment of a committee to consider this bill and report on it.

MEDICINE AND PHARMACY

I wish to call attention to the necessity of establishing a closer relationship between the professions of medicine and pharmacy. This movement has been growing for some time. I have been visited by a number of delegations in Washington, composed of both professions, and have been urged to endeavor to bring about a closer relationship between the two, as pharmacy should be one of the strongest aids in the practice of medicine.

Let me say in regard to Dr. Work, who is to assume the presidency of the Association, that this is one of the most important years the Association has ever known. He is abundantly able to carry on the work which has been initiated, and I appeal to you to help him in the accomplishment of his great task.

Address of Dr. Hubert Work

The President-Elect, Dr. Hubert Work, Colorado, delivered the following address, which was referred to the Reference Committee on reports of officers:

Mr. Speaker and Members of the House:

One year ago the Speaker recommended that the house set aside one-half day for executive session, freed from the officers and routine of a necessarily fixed program, for the consideration and discussion of new ideas which many of the delegates have doubtless brought with them. I believe this suggestion has tremendous possibilities and should be tried out. The arteries of this Association must be subjected to new, accentuated impulses, if they are to remain flexible.

SUGGESTIONS FOR CONSIDERATIONS

The suggestion of a year ago which contemplated the districting of the United States, to secure a more equitable distribution of trustees; reducing their number; and lengthening their terms, with a prohibition as to their immediate reelection, together with a change of title from trustee to director, appeals as well worthy of your earnest consideration.

I would again urge you to favorably consider extending an opportunity to the several sections, each to nominate a member to the House for president of the Scientific Assembly. I believe such a policy to be both politic and sound, but would not again urge that this suggestion should include nominations for the vice presidency.

GRADUATE WORK

Community graduate work, much of it before lay audiences, is an attractive working possibility and an educational necessity. Medical teaching should circulate; go out from and return to, state and national centers. The excursions of a teaching impulse should strengthen it. The enthusiasm of the one-way process wanes.

PUBLICITY FOR MEDICAL SCIENCE

The achievements of medicine have been hidden from the public because no systematic scheme for their display has been devised which dissociates the names of those who accomplish these great things from that which has been accomplished.

Physicians meet, discuss, learn and agree. Those for whom it is all done hear nothing of it and are brought no closer. Medicine should be advertised, to show what it has done and can do with what is impossible to it. It should be popularized through public acquaintance. Readable articles in popular magazines or in local papers, particularly the patent pages of the weekly press, would gladly carry such matter, because it would interest their readers. Advertise the achievements of medicine without naming the physicians who are doing, or have done the work, if now living. Those who are scientists, but never personal advertisers, resent the appearance of their names in the public print, for scientists first wish to prove a thing and trust to the truth to exploit it.

Public meetings are being held daily by paid talkers in the interests of organized quackery. Their false statistics, charges of persecution by an imaginary medical trust, with general misrepresentations of established medical facts, mislead those who, having no knowledge of that which is proved, are attracted by the loud declaiming of false doctrines.

EXECUTIVE AND FIELD SECRETARIES

Development work is so imperative that I believe the secretaries of state societies should be full-time paid men, selected because of their genius for organization. No man can succeed in medicine unless he first organizes his daily work and becomes a part of the organized profession. Practitioners under the supervision of a state secretary who has the vision to preceive an actuality before it is brought about can achieve much.

The Association should, I believe, have an executive secretary charged with the specific duty of organization work, through a staff of paid executive state secretaries.

Repeated attempts were made during the last four years to induce our ex-presidents to attend the meetings of the House of Delegates, without much success, the usual protest being that their presence was not anticipated by any provision

for their being heard in your deliberations. Ex-presidents are representative men in the Association. They have been schooled in its needs and ambitions. They should, in my opinion, automatically become members of the House of Delegates, with all of its privileges, excepting the right to vote.

SHEPPARD-TOWNER BILL

There is pending in the U. S. Senate a bill, No. 1039, known as the "Sheppard-Towner bill," which should have the analytic scrutiny of this House of Delegates. Another bill, No. 1607, which contemplates a Department of Public Welfare, has been introduced, much more comprehensive and far-reaching in its possibilities. These measures are well worth a day's discussion by this House. Certain senators have individually requested an expression from this Association on these bills. A memorial to the Senate would appear to be proper procedure.

Report of Secretary

The Secretary presented his report, which was referred to the Reference Committee on reports of officers, with the exception of that part pertaining to memorials and opinions, and this was referred to the Reference Committee on Amendments to the Constitution and By-Laws. (See page 1655.)

Dr. Arthur T. McCormack, Kentucky, moved the appointment of a Committee on Reapportionment, which was seconded and carried.

The Speaker said he would announce this committee later.

Dr. Arthur T. McCormack moved that when the House of Delegates took a recess, it do so in honor of Dr. Isadore Dyer, Louisiana, which motion was seconded and carried.

Report of Board of Trustees

Dr. A. R. Mitchell, Nebraska, chairman, presented the report of the Board of Trustees, which was referred to the Reference Committee on reports of officers. (See page 1657.)

Dr. J. H. J. Upham, Ohio, moved that inasmuch as the delegates were familiar with the reports of the various officers and various committees, as printed in the handbook, that the chairman of the councils and of the committees be allowed fifteen minutes in which to present the salient features of their report.

Seconded and carried.

Report of Council on Health and Public Instruction

Dr. Victor C. Vaughan, Michigan, chairman, presented the report of the Council on Health and Public Instruction, which was referred to the Reference Committee on Legislation and Public Relations. (See page 1663.)

Report of Council on Medical Education and Hospitals

Dr. Arthur Dean Bevan, Illinois, chairman, presented the report of the Council on Medical Education and Hospitals, which was referred to the Reference Committee on Medical Education. (See page 1671.)

Report of Council on Scientific Assembly

Dr. J. Shelton Horsley, Virginia, chairman, presented the report of the Council on Scientific Assembly, which was referred to the Reference Committee on Sections and Section Work. (See page 1678.)

Report of Judicial Council

The Secretary stated that the Judicial Council was in session taking action on the appeal which was referred to in the published report of the Council, and suggested that the House receive the report as printed in the handbook, in order that it might at once be referred to the Reference Committee on Amendments to the Constitution and By-Laws. (See page 1662.)

There being no objection, the Speaker directed that the report be so referred.

Committee on Reapportionment

The Speaker announced the following Committee on Reapportionment:

Dr. A. E. Bulson, Jr., Indiana; Dr. J. D. Brook, Michigan; Dr. L. J. Moorman, Oklahoma, with the Secretary and Speaker.

Resolutions on State Medicine

Under the head of new business, Dr. Eden V. Delphey, New York, offered the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

Resolved, That the American Medical Association is emphatically opposed to "State Medicine," and to any scheme for "Health Centers," "Group Medicine," and to "Diagnostic Clinics," either wholly or partly controlled, operated or subsidized by the State or National Government.

Dr. Charles J. Whalen, Illinois, offered the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

Resolved, That the Illinois State Medical Society is emphatica'ly opposed to "State Medicine," and to any schemes for "Health Centers," "Group Medicine," "Diagnostic Clinics," "Compulsory Health Insurance" either wholly or partly controlled, operated or subsidized by the State or National Government; and that the delegates from this Society to the American Medical Association be and are hereby instructed to present this resolution to the House of Delegates of the American Medical Association at its coming meeting in June and to use every possible honorable means to secure its adoption."

Dr. J. D. Brook, Michigan, presented the following resolution, which was adopted unanimously at the last annual meeting of the Michigan State Medical Society, held at Bay City:

Resolved, That the Medical Society of the State of Michigan is emphatically opposed to "State Medicine," and to any scheme for "Health Centers," "Group Medicine," and "Diagnostic Clinics" either wholly or partly controlled, operated or subsidized by the State or National Government, and that the delegates from this Society to the American Medical Association be and are hereby instructed to present this resolution to the House of Delegates of the American Medical Association at its coming meeting in June and to use every possible means to secure its adoption."

This resolution was referred to the Reference Committee on Legislation and Public Relations.

Resolution on Section on Anesthesia

Dr. Frederick C. Warnshius, Michigan, offered the following resolution, which was referred to the Reference Committee on Sections and Section Work:

Whereas, Some nine component State Societies have expressed the desirability of a section on anesthesia, and

Whereas, Some several hundred members of our profession have, by petition, given expression to the same desire, therefore be it

Resolved, That a separate section on anesthesia be created and added to the sections of our Scientific Assembly.

Resolution on Reconstruction in France

Dr. William Krusen, Pennsylvania, offered the following resolution at the request of Dr. W. W. Keen, Philadelphia, which was referred to the Reference Committee on Legislation and Public Relations:

Resolved, By the American Medical Association that, from the testimony of those who have seen the work of the American Committee for the devastated Areas of France, its value and its necessity—this and the tuberculosis work of the Rockefeller Foundation being the only existing agencies still in the field—we desire to express our conviction of the value of this work, and recommend that it be supported.

Resolution on Metric System

Dr. Wilmer Krusen, Pennsylvania, presented the following resolution, also at the request of Dr. W. W. Keen, which was referred to the Board of Trustees:

WHEREAS, The Metric System of Weights and Measures, and also the Centigrade Scale in Thermometers, must and we hope will soon be adopted in the United States, therefore, be it

Resolved, That in the various publications of the American Medical Association, the Metric System of Weights and Measures and the Centigrade Scale of the Thermometer be the standard. The English weights and measures and the Fahrenheit scale may be added in parentheses, if desired.

Resolutions on Relations of Medical Profession to the State

Dr. Arthur T. McCormack, Kentucky, presented the following:

WHEREAS, Economic and sociological conditions in the United States are causing the deprivation of many of our people, especially in rural districts, of sufficient, and, frequently, of any medical service; and,

WHEREAS, The physical examination of five millions of our young men during the war revealed that the present system of medical practice is inadequate for the detection, prevention or treatment of many diseases and physical defects which are causing inefficiency, and

unnecessary disease and suffering, leading to premature death, thus literally wasting millions of dollars annually; and

WHEREAS, This reckless waste of our American manhood and womanhood is due to insufficient education of physicians, nurses and others responsible for the public health, and therefore of the general public, in personal hygiene and preventive medicine, especially in the care of babies and children, and in the importance of systematic periodic examination of apparently well people for the purpose of the prevention or early correction of disease and defects; and,

WHEREAS, A few state medical organizations have hastily approved resolutions which confuse preventive medicine with health insurance to which this organization is unalterably opposed; now, therefore, be it

RESOLVED, That the Conference of State and Provincial Health Authorities of North America—composed entirely of physicians, jealous of the reputation of the profession of whose history and achievements we are justly proud, since it has contributed so much towards every practical step, in the reduction and prevention of disease—urges that the organized medical profession shall accept its responsibility for progress in the prevention of ill health and its causes, and shall support through county and municipal medical societies such diagnostic teaching and other clinics as will bring to all the people, whether living in the cities or in the country, all of the knowledge and means necessary to enable the members of every community, however remote from medical centers, to live through the years of their natural expectation with the utmost possible freedom from preventable and remediable disease and defects; and, be it further

RESOLVED, That this resolution be presented to the American Medical Association with the request that its principles be approved and that, through its great journal, and its Councils and other agencies, it exercise its responsibility for leadership in improving the education of the profession and the public in personal hygiene and preventive medicine.

The resolution was referred to the Reference Committee on Legislation and Public Relations.

Resolution on Work of the Association

Dr. J. H. J. Upham, Ohio, presented the following preambles and resolution, which were referred to the Board of Trustees:

WHEREAS, The activities of the American Medical Association have sometimes been circumscribed and its service to humanity limited by a lack of coordination in the separate policies of the component State Medical Associations, and

WHEREAS, The effectiveness of organized medicine as a national institution has been hampered by conflicting programs of activities in the various state medical associations, largely due to the want of full information on subjects of national scope and general importance, and

WHEREAS, The American Medical Association has rendered to the public a distinct service through its investigation of quackery and nostrums, but which information unfortunately has been given limited circulation, and

WHEREAS, It is the duty of the American Medical Association and the component state associations to point the way in those movements looking toward disease prevention, health preservation and public welfare, therefore be it

Resolved, That as delegates representing the various state medical associations, we pledge our full and hearty support to the American Medical Association in its ideals and purposes; that we pledge ourselves to closer and more harmonious cooperation to the end that organized medicine may render a greater service to the nation and its citizens as well as in the maintenance of high standards and lofty ideals in professional practice; that in the attainment of this object we urge the inauguration of a service and information bureau with perhaps an enlarged propaganda department in the American Medical Association; that a bulletin service be instituted from the headquarters of the American Medical Association for the purpose of constantly keeping the executive secretaries of the various state associations informed on proposals in federal legislation and activities by various national bodies and organizations in any way pertaining to problems or regulations on public health and medical practice; that the American Medical Association be encouraged and supported in its proposal to establish the publication of a public health journal as a forum through which the laity may be better informed on medical and health problems; that the staff of the American Medical Association be arranged and so enlarged if need be, for the proper contact with federal departments and bureaus in any way dealing with problems on public health and medical practice; that the staff of the American Medical Association be encouraged and supported in the delegation of field secretaries for the purpose of establishing more candid and cordial relations between the profession in the several states and the American Medical Association.

Resolution on Taxation of Alcohol

Dr. J. H. J. Upham, Ohio, presented the following preambles and resolution, which were referred to the Reference Committee on Legislation and Public Relations:

WHEREAS, The law of this nation no longer recognizes as legitimate any beverage spirits, and

WHEREAS, Undenatured ethyl alcohol has a legal and proper place in legitimate industry in connection with chemical, pharmaceutical or medical products, it is no longer proper that this product should be taxed 1,000 per cent. of its value, and

WHEREAS, Narcotics are now properly tax free although they sometimes find their way into illicit use, the same as alcohol, in spite of careful precaution of those interested in their legitimate use, and

WHEREAS, Such tax is no aid in the enforcement of prohibition laws and regulations, but rather has resolved itself into a penalty of $4.40 per gallon upon those who have occasion to use such undenatured alcohol in legitimate manufacturing or other processes, and

WHEREAS, Through foreign competition chemicals and pharmaceuticals from other nations where there is no federal tax on alcohol are able to compete to the detriment of American enterprise, and in the end the ultimate user pays the tax, often increased many fold, and in view of the fact that all tincture and most other medicinal liquids contain much alcohol, with a resultant financial burden on the sick, and mostly upon the sick poor, therefore, be it

Resolved, That the American Medical Association believes that the federal tax on undenatured ethyl alcohol has outlived its usefulness; that such tax is a tax on the sick and on legitimate users thereof, and that the American Medical Association memorialize Congress to abolish the present special tax on ethyl alcohol.

Communication on Malpractice Defense

Dr. Frederic E. Sondern, New York, presented the following communication, which was referred to the Reference Committee on Miscellaneous Business:

The increased number of technical procedures involved in the modern practice of medicine, while of the greatest benefit in diagnosis and treatment, have materially raised the legal standards of skill and care imposed upon the physician in his relation with his patient, and thereby have increased the legal hazard of the physician in his practice.

For these reasons adequate malpractice defense is becoming an increasing burden to every state society which operates a defense plan, and the advantages of indemnity protection are more apparent. However, physicians carrying such insurance under the terms of their policy usually forfeit the benefit of defense by the state society.

Every insurable claim against a physician concerns his skill or method of practice, and such claims must be considered as involving vital questions of professional principle in which respect this type of indemnity protection differs from general liability insurance where purely financial considerations only are at stake.

Nothing can repair the damage to a physician's reputation when a financial settlement is made of an unjust or unfair claim. The advisability of having the insurance companies make this distinction is imperative, and this can only be done by having these claims against physicians disposed of by applying the principles controlling the malpractice defense activities of the state medical societies. In this way members are safeguarded and the insurance carrier is ultimately benefited.

Therefore, fundamentally, indemnity insurance for physicians must be operated under the malpractice defense bureaus of state medical societies and in accordance with their principles.

This has been accomplished by the Medical Society of the State of New York by providing optional indemnity protection in addition to malpractice defense under the direction and control of the legal counsel of the society.

By reason of these premises, it is recommended that the House of Delegates of the American Medical Association approve the principle and recommend its favorable consideration to the constituent societies of the Association.

Communication on Coordination of Legal Action

Dr. Frederic E. Sondern, New York, also introduced the following, which was referred to the Board of Trustees:

By reason of the unique questions of legal liability of physicians in modern medical practice that are constantly arising, and the divergent views of courts in various states concerning the same, it is desirable to secure increased efficiency in the consideration of these matters by some coordination of effort and interchange of information on the part of the legal counsel of the various constituent societies, to the end that a better understanding of the problems arising in the defense of physicians can be secured.

It is therefore recommended that this matter be referred to the Trustees or the suitable Council of the American Medical Association for their consideration and suitable action if approved.

Resolution on Universal Military Training

Dr. Frederic E. Sondern, New York, presented the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

The Caduceus Post, American Legion of New York City (which has a membership of over four hundred former medical officers of the Army and Navy), has been deeply interested during the past winter in the subject of universal military training.

We believe that the time is ripe for a united effort on the part of ex-service medical men and of the whole profession to inaugurate a campaign in this state. It is our plan, by personal efforts and through local and national societies, to educate the public regarding the vital importance of such physical training, including discipline, both mental and moral, for the coming generation of young men.

Our post intends to push this movement in New York State, confidently expecting that it will lead to a nation-wide campaign. Your committee on Military Affairs offers the following resolution for your approval:

"WHEREAS, The American Medical Association was the most powerful factor in recruiting the Medical Reserve Corps during the war, we earnestly desire to secure its cooperation in this important work. Be it

"*Resolved*, That the Caduceus Post requests the House of Delegates to bring this subject before the Association at the coming meeting for general discussion."

Motion on Rules

Dr. E. Eliot Harris, New York, moved that the standing rules for the guidance of the Committee on Credentials be referred to the Reference Committee on Rules and Order of Business, with the request that that committee report back a recommendation in order that apparent conflict in the rules now in force may be removed.

There being no objection, the motion was so referred.

Resolution on Narcotics

Dr. Edward Livingston Hunt, New York, presented the following resolutions, which were passed by the House of Delegates of the Medical Society of the State of New York, May 2, 1921, to be presented to the House of Delegates of the American Medical Association;

WHEREAS, The bills introduced in the present session of Congress by Senator Jones of Washington (S. 206) and Representative Miller of Washington (H. R. 2193) contain a clause reading as follows:

"And the importation of opium or cocaine or any salt, derivative, or preparation of opium or cocaine hereafter is hereby declared to be unlawful, provided that such amounts of crude opium, and coca leaves or other crude narcotics as may be found necessary by the Secretary of State, the Secretary of the Treasury, and the Secretary of Commerce to provide for medical and legitimate uses may be imported under rules and regulations to be prescribed by the Secretary of State, the Secretary of the Treasury, and the Secretary of Commerce," and

WHEREAS, The effect of the enactment of said bills would be to enhance the price of cocain and the opiate drugs and possibly to make them difficult to obtain in case of emergency or epidemic requiring the use of larger quantities than usual, and

WHEREAS, The vigorous and adequate enforcement of the Harrison Narcotic Law would automatically limit the imports of these drugs to the amount that could be legitimately used, while an arbitrary limitation such as these bills provide would increase the illicit traffic through smuggling, and

WHEREAS, There is no present need for a limitation of imports, and no present data for determining the amount required for medical and legitimate uses,

Resolved, That the Medical Society of the State of New York opposes the passage of these bills unless the clause quoted above be stricken from them. And further

Resolved, That a copy of this resolution be forwarded to Senators Calder and Wadsworth, and to the chairman of the Ways and Means Committee of the House of Representatives, that it be printed in THE JOURNAL, and that the delegates from this state to the annual meeting of the American Medical Association be instructed to introduce and vote for a similar resolution at such meeting.

Resolution on Extension of Interstate Practice

Resolved, That the American Medical Association be urged to perfect a plan to facilitate the extension of interstate practice without the lowering of medical standards now existing in New York State.

These resolutions were referred to the Reference Committee on Legislation and Public Relations.

Motion on Hotel Reservations

Dr. J. H. J. Upham, Ohio, moved that the Secretary of the Association reserve for next year a sufficient number of rooms, and announce in THE JOURNAL that these rooms will be held until ten days before the meeting, so that the delegates may secure their reservations through the Secretary.

Seconded and carried.

Supplement to Report of Judicial Council

Dr. M. L. Harris, Illinois, chairman, presented the following report as a supplement to the report previously presented, which on motion of Dr. J. H. J. Upham, Ohio, seconded by Dr. Franklin E. Murphy, Missouri, was approved.

The report is as follows:

The Judicial Council recognizes the right of the Spokane County Medical Society to adopt By-Laws governing the qualifications of its members, provided they do not conflict with the By-Laws of the Washington State Medical Association, or the American Medical Association, or with the principles of medical ethics of the American Medical Association.

Dr. John O'Shea and Dr. Frank Rose were within their rights when they appealed to the State Association before specific charges had been made against them on the well-recognized principle of declaratory law or preventive justice.

The Washington State Medical Association had jurisdiction in the appeal of Drs. O'Shea and Rose under Article 9, Section 1, of its Constitution and By-Laws, which states "The Board of Trustees shall be the Board Censors of this Association. . . . The Board of Trustees, except during sessions of the House of Delegates, shall have full power to act on all matters concerning the business of the Association."

The Judicial Council is of the opinion that the Washington State Medical Association exceeded its powers when it peremptorially ordered the Spokane County Medical Society to rescind a By-Law which it had properly adopted, without specifically showing wherein the County Society had exceeded its rights in passing the said By-Law, or wherein the By-Law, which was ordered rescinded, was in conflict with the Constitution and By-Laws of the Washington State Medical Association, the American Medical Association, or the principles of medical ethics of the American Medical Association.

The Judicial Council, therefore, hereby overrules the action of the Washington State Medical Association.

Supplementary Report on Credentials

Dr. H. B. Gibby, Pennsylvania, chairman, presented a supplementary report for the Committee on Credentials, stating that ninety-six members had registered and were entitled to seats in the House of Delegates.

The House of Delegates then adjourned until 9:30 a. m., Tuesday, June 7.

(To be continued)

Ventilation Problems in Vehicular Tunnel.—The United States Bureau of Mines and the New York and New Jersey State Bridge and Tunnel commissions have agreed to conduct cooperative investigations with a view to determining the best method of ventilation to remove the poisonous products of combustion from motor vehicles in the projected Hudson River Vehicular Tunnel. The Bureau of Mines, under a similar cooperative agreement, reported to the commissions, last November, the amount and composition of exhaust gases from motor vehicles obtained by making road tests on 101 automobiles and trucks at the bureau experiment station at Pittsburgh, under direction of A. C. Fieldner, supervising chemist. The necessary dilution with fresh air to render such gases harmless was ascertained by a series of comprehensive tests on a large number of students in the physiological laboratory at Yale University. Dr. Yandell Henderson, consulting physiologist of the Bureau of Mines, who conducted the experiments, found that no noticeable symptoms of discomfort appeared after one hour's exposure to concentrations of carbon monoxid in air not exceeding four parts in 10,000. The solution of the problem for moving the required quantity of air through the tunnel will be worked out by means of an experimental duct being constructed at Urbana, Ill., similar to the proposed ducts in the tunnel, where the Bureau of Mines has its central district experiment station. The investigation will be directed by Prof. A. C. Willard, head of the department of mechanical engineering, University of Illinois, and consulting engineer of the U. S. Bureau of Mines in connection with the study of ventilating problems in mining practice. The final check on the solution of the three previous problems will be obtained in an experimental tunnel now being constructed in the experimental mine of the Bureau of Mines at Bruceton, Pa., near Pittsburgh. Studies will be made with respect to (*a*) the diffusion of exhaust gases in the cross section of the tunnel; (*b*) temperature conditions as affected by the operation of internal combustion motors; (*c*) physiological effects of temperature, exhaust gases, and smoke under operating conditions; (*d*) final check on all previous investigations. The investigation at Pittsburgh is under the direction of A. C. Fieldner, supervising chemist, and J. W. Paul, mining engineer. George S. Rice, chief mining engineer, and Prof. A. C. Willard, consulting ventilating engineer, are consultants on the ventilation experiments. Drs. Royd R. Sayers, chief surgeon of the Bureau of Mines, and Yandell Henderson, consulting physiologist, are carrying on the physiological studies in the experimental tunnel.

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THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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DISAPPOINTMENTS OF ENDOCRINOLOGY

A recent issue of THE JOURNAL [1] contains a caution lest, in the current enthusiasm for so-called endocrinology, medicine become humiliated by the drift toward a sort of pseudoscience bolstered up with meaningless words and unfounded assumptions. It is time for the medical profession to face the facts squarely. We shall not deny the great advances that have been made in comparatively few years in the study of thyroid function. Much of the knowledge gained either by scientific research or by clinical observation has "made good" through direct application in practical therapy. Changes in thyroid function may lead to symptoms that are fairly definite, determinable, clinical entities. Therapeutic success attests the value of much that has been accomplished and the verity of a few of the assertions that are taught.

As much cannot be said for the suprarenal structures. G. N. Stewart of the Western Reserve Medical School at Cleveland deserves the thanks of the medical profession for the fearless and critical manner in which he has questioned much of the verbal rubbish that goes under the designation of the endocrinology of the suprarenals. In a trenchant review he [2] has gone even farther in pointing out the invalidity of some of the experimental evidence that has been marshaled to support pet theories. One postulate stands unchallenged, namely, that the loss of the suprarenals is incompatible with life. Hence the conclusion is inevitable that these structures contribute something indispensable to the functioning of the body.

What, then, is "suprarenal insufficiency"? To this question no one has yet given a satisfactory answer. The symptoms attending decline and death after extirpation of the suprarenals are not specific or constant; indeed, they are duplicated by the outcome of various other abnormal states in which no "endocrine" disorder is assumed. The essential manifestations of the loss of the suprarenals remain obscure. Why shall we continue to postulate a condition which cannot be diagnosed even under the most favorable circumstances?

The first answer to any query about the suprarenals is likely to involve the function of epinephrin, the well defined chemical compound that is usually present in the medullary portions and can somehow be discharged into the circulation. The pharmacologic potency of this product cannot be denied. It was natural that attention should be directed promptly to the possibility that epinephrin is the primary active principle, the physiologic hormone of the suprarenals. Is "suprarenal insufficiency" represented, then, by interference with the output of epinephrin? This can scarcely be the case; for animals continue in health after extirpation of one suprarenal and denervation of the other, a procedure after which no detectable amount of epinephrin is liberated. The assertion that epinephrin is at least secreted in physiologic emergencies has been reviewed in THE JOURNAL [3] with the conclusion of "not proven." The assumption that it serves to maintain the tonus of the blood vessels and the normal blood pressure has likewise proved to be untenable. Injected epinephrin has a definite pharmacologic action on the circulation; so have drugs not even remotely associated with animal tissues. Neither class necessarily represents a normal stimulus because it happens to have demonstrable effects when introduced in the body. No one alleges that the alkaloids, powerful though they are, have a known physiologic function in plants.

Furthermore, although epinephrin is a component of the suprarenal medulla, it is the cortex of the suprarenal structures that appears to be the vitally important portion. If one argues for the "fetish of suprarenal insufficiency," it can scarcely be associated with the hormone epinephrin; for, as Stewart points out, the experimental evidence has tended more and more to show that the cortex is the part of the suprarenal indispensable for life. It is the cortical tissue which alone, or at any rate most conspicuously, undergoes compensatory hyperplasia when a deficiency is created by removal of a considerable part of the suprarenal tissue. The accessory suprarenal tissue, which also undergoes hypertrophy under these circumstances, and which is usually supposed to be responsible for the survival of those animals that do not succumb to the loss of both suprarenals, consists entirely of cortex. Only the cortical tissue can be successfully grafted.

Even in Addison's disease there is no experimental basis for the assumption that the defects of suprarenal function are due to a loss of epinephrin function. How much, then, can be implied in the vague "hypoadrenal" states of clinical literature. There is something stinging, yet deserved in its implied rebuke, in the words of Stewart.[2] "On the whole," he says, "it must be granted that hitherto the attempts made to evoke in animals a well marked syndrome characteristic of adrenal deficiency have been singularly disappointing. The contrast is great when we leave this desert, where the

1. The Endocrine Glands—A Caution, editorial, J. A. M. A. **76**: 1500 (May 28) 1921.

2. Stewart, G. N.: Adrenal Insufficiency, Endocrinology **5**: 283 (May) 1921.

3. Is Epinephrin Indispensable to Life? editorial, J. A. M. A. **73**: 192 (July 19) 1919; The Debated Theories of Suprarenal Function, ibid. **74**: 326 (Jan. 31) 1920.

physiologists and experimental pathologists have wandered, striking many rocks but finding few springs, and pass into the exuberant land of clinical endocrinology, flowing with blandest milk and honey almost suspiciously sweet."

How much longer will our profession continue to merit such criticism? Just so long as our profession continues to give serious consideration to pseudoscientific rubbish promulgated by the exploiters of organic extracts.

CENTENARY OF THE FRENCH ACADEMY OF MEDICINE

Our Paris correspondent has told [1] of the celebration, beginning Dec. 20, 1920, of the most important anniversary connected with French medicine—the centenary of the Academy of Medicine, which has the same preeminence in medicine that the general French Academy bears in relation to the more liberal arts. Its roster bears only the names of those who have by years of achievement won recognition in the profession, and there are few below middle life who have been accorded the honor of election. Trousseau, who received the academy prize in 1837 for his classical treatise on laryngeal phthisis, was considered unusually fortunate in that he gained admission in his thirty-sixth year. The academy was founded in 1820 by royal edict of Louis XVIII, although its name appeared as early as 1804 as an entirely ephemeral institution, the chief interest attaching to it being that Dr. Guillotin was one of its presidents. The French Revolution, with its ruthless submergence of all that pertained to the old order of things, dissolved all medical associations, and among these the Academy of Surgery and the Royal Society of Medicine, which after nearly a century of existence disappeared, to come to life again in the founding of the present Academy of Medicine. The initial concept of the academy was the formation of a body which, by its scientific labors and achievements, should be an asset to the state in matters of public health. The decree which constituted it lays down certain functions which it was to carry on. Among them were improvements in the method of vaccination against smallpox, the measures for the control of epidemic diseases, regulations as to and concerning legal jurisprudence, and the examination of and passing on new remedies, together with the limitation of the sale of nostrums, both those of French and those of foreign origin. While the present academy still holds the latter function, its work, to a large degree, is hampered by the administration of French law, as was pointed out in a former editorial.[2]

The *Bulletin* of the Academy for Dec. 20-22, 1920, is devoted to a review of the history and labors of the society since its foundation. It records a century's achievement by men whose names are known the world over: Pinel, Laënnec and Broussais in the early days: Trousseau in the thirties: Villemin and Pasteur, and on down through the list of those who have added to the sum of certain knowledge which has lifted medicine from scientific guesswork to the dignity of a precise science.

The idea of the French Academy of Medicine was never that of an originating body, so far as medical discovery was concerned. It was the forum in which theories were to be discussed and approved or disapproved: the crucible in which the pure metal was to be tried out from baser alloy. Grisolle, one of the earlier presidents, expresses this when he says, "The duty of the academy is not that of making discoveries, but the recognition of those made; to encourage helpful innovations and to see that they do not run away with established custom and lead to paths which stray from the beaten road of scientific truth." Tardieu, Bouley and others who occupied the presiding chair voiced the same sentiment, and it was this sane and careful principle which built up the academy to the distinguished position which it now occupies. In 1861-1862 it was the action of the academy which made for the betterment of the condition of the hospitals of Paris, which, like many others of that period, left much to be desired from the standpoint of hygiene and management.

The efforts of the academy in respect to the necessity for universal vaccination against smallpox were unremitting, and it is incontestable that the spread of this preventive measure was largely due to the influence of this body of scientific men. In this fight, the names of Hervieux, Le Fort, Proust, Léon Colin, Lagneau and Brouardel stand out prominently, and the confidence which the French government had in the wisdom of this consultative body is expressed in Article 6 of the law of Feb. 15, 1902, in which, after the provisions for compulsory vaccination have been set forth, it is stated that this law is put into effect after consultation with the Consulting Committee of Hygiene and the Academy of Medicine. Dr. Camus, in his address delivered during the centenary, says in respect to smallpox: "In France, prior to 1877, the annual mortality varied between 1,500 and 3,000. After 1907, that is to say, thirty years later, it never reached 100, save in the case of Marseilles where, for some reason, vaccination was not thoroughly carried out until 1913. In Paris, after 1907, the mortality was never over twelve, save only in 1910 and 1919, when there were, respectively, eighteen and thirty-four deaths. During the first years of the war the mortality was nil—hitherto an unheard of thing." To have helped in the bringing about of a condition such as this seems reason enough for the existence and continuation of any scientific body.

It is not alone, however, in combating epidemics that the work of the academy has shown its worth. The researches of Villemin, Barth, Davaine and, later, Pasteur and Roux in the science of communicable diseases were sufficiently brilliant to uphold the high name of

1. The Centenary of the Academy of Medicine, J. A. M. A. 76: 190 (Jan. 15) 1921; 76: 323 (Jan. 29) 1921.
2. The Public Press in Medical Matters, editorial, J. A. M. A. 75: 1274 (Nov. 6) 1920.

the academy and demonstrate its very real worth to the state. Connected with the advances in surgery are the names of Dupuytren and Cruveilhier; of Malgaigne and Guérin and Valpeau and many others, each one of whom brought something new, some advance for the approval of the academy and its consequent adoption by the profession. From its very beginning, this distinguished scientific society has been an asset to the state and an invaluable board of council and advice to those who thought that they saw with clearer vision improved means and better measures by which the health of the nation might be conserved. It has come to be the *corps d'élite* of those who practice medicine in any of its infinite branches. The proceedings of this centenary meeting, already referred to, and far too long to attempt to reproduce here, are an interesting record of steady achievement, of continued advance along the many and intricate specialties which make up the complex total of what medicine is today.

SPRUE

Modern methods of rapid transportation and travel have brought with them the possibility of a distribution of carriers of disease and disease itself in an active state to an extent not anticipated half a century ago. It is no longer an oddity to encounter various maladies in the temperate zones that formerly were strictly classified as tropical diseases. Institutes for the investigation of the latter are no longer confined to the hot climates or even semitropical zones. Amebic dysentery no longer deserves the distinction of being a tropical disorder, since it is intimated that nearly half a million of our soldiers may have been carriers of the infectious protozoan at the end of the World War.[1] Pellagra is assuming a geographic distribution beyond the limits that were assigned to it in the days when it was less frequently recognized. Outbreaks of considerable importance and sometimes persisting for several years have been observed in the northern United States, especially in institutions for the insane. MacNeal[2] has observed that in the geographic areas where pellagra prevails, its distribution is extremely uneven. The same comment applies in lesser degree to sprue. Although this disease is endemic in certain parts of Asia and is rare in the natives, while it affects primarily the foreigners residing there, a recent observer[3] has called attention to the fact that ever increasing communication between tropical and temperate countries has made possible the appearance in Europe and North America of more and more cases of that malady, which is widely distributed in the tropics under the names of Ceylon sore mouth, psilosis, diarrhea alba, aphthae tropicae, etc.

1. Kofoid, C. A., and Swezy, Olive: On the Prevalence of Carriers of Endamoeba Dysenteriae Among Soldiers Returning from Overseas Service, Am. J. Trop. Dis. **1**: 41 (Jan.) 1921.
2. MacNeal, W. J.: Pellagra, Am. J. M. Sc. **161**: 469 (April) 1921.
3. Brown, T. R.: The Absence of Pancreatic Secretions in Sprue and the Employment of Pancreatic Extract in the Treatment of this Disease, Am. J. M. Sc. **161**: 501 (April) 1921.

It seems clear, therefore, that almost no part of the civilized world can afford to neglect the study of many of the debilitating so-called tropical diseases which were once considered essentially as medical rarities by practitioners in our temperate zones. Not only our insular possessions, but nowadays even our homeland presents the problems squarely before the American medical profession. Recently some of the questions suggested by pellagra and amebic dysentery were considered from this point of view in THE JOURNAL.[4] In the case of sprue, which has long baffled the attempts to unravel its etiology, Brown[5] called attention to the absence of the pancreatic enzymes—trypsin, lipase, amylase—in a patient under his care. This finding would help to explain in part the character of the stools that are observed in cases of sprue, notably the large amounts of undigested and unabsorbed fats which they may exhibit. Some writers have actually described sprue as the manifestation of a "tropical pancreas" in which early congestion is succeeded by subsequent exhaustion of function.[6] At necropsy the pancreas has sometimes, though by no means always, been found to show cirrhotic changes.

More recently, new chronic cases of sprue investigated in this country by Brown[5] have fortified him in the belief that at least in some of such patients there is a complete absence of pancreatic enzymes. This view is fortified by the therapeutic finding that great improvement and, in some cases, apparently clinical cure can be brought about by the continued regular administration of preparations of pancreatic digestive enzymes. The statistics are still far too meager to warrant any extravagant statements; nevertheless, any tentative suggestion looking toward the amelioration of the symptoms in an admittedly obscure disorder can only be welcomed, especially when they involve nothing more radical than therapy with digestive ferments. This does not preclude the recognized empiric dietetic and hygienic management of the disease; nor should partial success in the direction of relief be allowed to overshadow or obscure the ignorance in which our knowledge of the actual nature of sprue is still deeply veiled.

4. What is the Cause of Pellagra? editorial, J. A. M. A. **76**: 1577 (June 4) 1921; Carriers of the Pathogenic Amebas of Dysentery, ibid. **76**: 1405 (May 21) 1921.
5. Brown, T. R.: Bull. Johns Hopkins Hosp. **26**: 289 (Oct.) 1916.
6. Sitt, E. R.: Diagnostics and Treatment of Tropical Diseases, Philadelphia, P. Blakiston's Son & Co., 1914, p. 245.

Team Work in Treatment of Tuberculosis.—Instead of a coordinated harmonious service working with a definite policy, and offering the advantages of all the methods of proved utility at just those periods when they are especially indicated, we find an incoordinate system of individual workers of varying ability and varying opportunity. There is an absence of team work, no "pull together," and administrative details swamp therapeutic effort. A multiplicity of forms are produced as evidence of work done, but in reality conceal defects, and are even of doubtful value for statistical purposes. The service, though vociferous, is inarticulate, as it possesses no authoritative voice.—H. Gauvain, *Brit J. Tuberc.* **15**:1, 1921.

Current Comment

THE BASAL METABOLISM OF GIRLS

At various times THE JOURNAL has directed attention to the relatively high basal metabolism and correspondingly larger food requirement of children in comparison with adults. According to the extensive calorimetric investigations of Du Bois,[1] the basal requirement of boys is 25 per cent. above that of the adult per comparable unit of size. It is still notably high just before puberty, but becomes lower when this developmental condition has been established. Considered in connection with the usually lively muscular activities of children—performances which in themselves call for a liberal expenditure of energy—the foregoing facts explain and justify the large appetites of growing boys. One writer [2] familiar with the lessons of human nutrition has remarked that lack of appreciation of this factor, or lack of provision for it, are the probable causes of much of the undernutrition seen in children of school age. The metabolism of growing girls has heretofore been considered experimentally far less than that of boys. It is fortunate, therefore, that the gap in our knowledge has in large measure been filled by Benedict and Hendry [3] in investigations conducted at the Boston Nutrition Laboratory of the Carnegie Institution of Washington on girls from 12 to 17 years of age. The data accumulated from careful observations on girl scouts verify the current beliefs as to the relatively enhanced nutritive needs of growing children. However, there seems to be little ground for assuming any special influence of puberty or the prepubertal age on the metabolism of girls.

VARIATION IN THE SIZE OF RED BLOOD CELLS

The red corpuscles form about 50 per cent. of the total mass of the blood. They are soft and flexible so that they can readily be driven through capillary channels narrower than themselves without undergoing any permanent change in shape. They are, however, susceptible to changes in size brought about by alteration of the chemical make-up of their fluid environment. Every one is familiar with the osmotic relationships of the red corpuscles whereby they swell or shrink, respectively, in hypotonic or hypertonic solutions. Price-Jones [4] of the British Medical Research Council has recently called attention to diurnal variations in the diameter of red cells within the circulation itself, namely, a gradual increase during the day and a diminution during sleep. These changes undoubtedly include a change in the volume of the individual erythrocytes. The variations in diameter, amounting in some cases to as much as 0.6 micron, suggest that the red cells swell and shrink in association with bodily activity. In harmony with this it has actually been observed that violent exercise increases these changes. The probable explanation has been found in the differences in the reaction of the blood, though the details are scarcely known. At any rate, even the red cells are more sensitive to their plasma environment than is commonly supposed.

1. Du Bois, E. F.: The Metabolism of Boys 12 and 13 Years Old, Compared with the Metabolism at Other Ages, Arch. Int. Med. 17: 887 (June) 1916.
2. Lusk, Graham: Science of Nutrition, Philadelphia, W. B. Saunders Company, 1917, p. 559.
3. Benedict, F. G., and Hendry, Mary F.: The Energy Requirements of Girls from 12 to 17 Years of Age, Boston M. & S. J. 184: 217 (March 3) 1921; 257 (March 10); 282 (March 17); 297 (March 24); 329 (March 31).
4. Price-Jones, C.: The Diurnal Variation in the Sizes of Red Blood Cells, J. Path. & Bacteriol. 23: 371 (Dec.) 1920.

THE TOXICITY OF FLUORIDS

The long struggle which resulted in the enactment of the federal Food and Drugs Act of 1906 brought the death knell to a considerable number of nefarious practices, including the use of a variety of physiologically objectionable food preservatives. The investigations conducted under governmental auspices by the much discussed Referee Board of Consulting Scientists have enriched our knowledge of the action of a number of substances in this class. The status of benzoic acid, salicylic acid, sulphurous acid and their derivatives, for example, has been exhaustively reviewed so that the salient facts are readily available to all interested. Among the less conspicuous substances that have at times acted in the rôle of food preservatives belong the fluorids. They have never been used commonly, and probably few persons realize that they have ever been found in foods or recommended for use to preserve the latter. This insidious way in which they may therefore gain entrance to the body is supplemented by the report that "phosphate rock," which is alleged to be used to some extent in the production of the ingredients of certain types of baking powders, is likely to obtain fluorids. A statement attributed to the Bureau of Chemistry indicates that the finished baking powders are made from the acid calcium phosphate containing in the neighborhood of 0.04 per cent. of fluorin; but, if carelessly manufactured, i. e., if calcium acid phosphate is used, they may contain as much as 0.5 per cent. Expressed in terms of the possible daily intake in this form by an adult, this is estimated to be equivalent, in the extreme range, to from 0.77 to 78.1 mg. (from 1/85 to 1 1/5 grain) per person, or from 0.13 to 1.3 mg. per kilogram of body weight. Doses of this order of magnitude administered to animals by Sollmann, Schettler and Wetzel [1] of the Western Reserve Medical School did not perceptibly affect growth or food consumption. Considerably larger doses were not so innocuous and, in the extreme cases, resulted in progressive impairment of growth and food intake. The damage is proportional to the dose. It tends to outlast the administration of the drug, so that animals once impaired remain permanently below normal. The effects are not due to "general salt action," for a corresponding intake of common salt is not harmful. It is consoling to know that under usual conditions of the food industries and food consumption the possible ingestion of fluorid is likely to be far below the deleterious range; but a substance that may be markedly toxic in daily doses of 15 mg. per kilogram of body weight can never be regarded as other than a potential menace—particularly as there is no valid excuse for its presence in the diet.

1. Sollmann, Torald; Schettler, O. H., and Wetzel, N. C.: Studies of Chronic Intoxications on Albino Rats, IV. Fluorid, Chlorid and Calcium, Including Sodium Fluorid, Sodium Chlorid, "Phosphate Rock," Calcium Phosphate (Precipitated) and Calcium Carbonate (Precipitated), J. Pharmacol. 17: 197 (April) 1921.

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST; SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, ETC.)

ALABAMA

State Laboratory.—According to an announcement of the state health officer, a building has been purchased in Montgomery to be used for the new state laboratory and Pasteur Institute. In addition to furnishing space for the laboratory the building will provide for the housing of all the health department's various bureaus and subdepartments. The appropriation made by the legislature amounts to $30,000 which has been available for sometime. In the entrance hall of the new quarters of the health department will be placed a marble bust of Dr. Jerome Cochran, formerly health officer for Alabama and the originator of this state's present public health system.

ARKANSAS

State Medical Board.—Governor McRae, May 19, appointed the following physicians to fill vacancies on the state medical board; Drs. John C. Swindle, Walnut Ridge; James W. Walker, Fayetteville; John T. Palmer, Pine Bluff, and Hendric A. Ross, Arkadelphia.

CALIFORNIA

New Vaccination Law.—Governor Stephens has signed the measure which repeals the present compulsory vaccination law and makes the state board of health the sole authority for regulating smallpox epidemics. The new law prohibits the adoption of rules and regulations relating to vaccination by school or local health authorities.

COLORADO

Association of Anesthetists.—The Colorado Association of Anesthetists was organized, May 6, at Denver, and the following officers elected: president, Dr. Karl F. Roehrig, Denver; vice president, Dr. Lloyd R. Allen, Colorado Springs; secretary, Dr. George B. Lewis, Denver; treasurer, Dr. O. C. Hickman, Denver; Dr. David E. Hoag, Pueblo, representative to the American Association of Anesthetists.

DISTRICT OF COLUMBIA

The American Therapeutic Society.—At its twenty-second annual meeting held, June 3, at Washington, the society went on formal record as opposed to the manner in which physicians are restricted by prohibition enforcement.

Poisoning of Medical Students.—Twenty-five students, members of the freshman and sophomore classes of Georgetown Medical School, residing at Phi Chi fraternity house, were stricken with food poisoning, May 31, and fourteen were taken to the Georgetown University Hospital in a serious condition. Canned food eaten by the students Sunday evening is believed to be the cause of the poisoning.

ILLINOIS

Chicago

Lectures at University of Chicago.—Dr. Carlos Chagas, head of the department of health in the Republic of Brazil, and discoverer of Chagas' disease, will give two lectures on American trypanosomiasis at the University of Chicago, June 22 and 23, at 5 p. m.

Honor Madame Curie.—The Chicago section of the American Chemical Society will present the eleventh Willard Gibbs medal, founded by William A. Converse, to Madame Marie Sklodowska Curie at a reception and dinner to be given on Tuesday evening, June 14, at the Congress Hotel.

Rush Class Takes Annual Outing.—The class of 1889 of Rush Medical College, in accordance with a custom adopted on its thirtieth anniversary, held a reunion recently as the guests of Dr. Frank Boyd, Paducah, Ky. Drs. Henry A. Norden, Otto Wernicke, George F. Butler, John Minahan, E. P. Rice, Henry De Buy, Herbert Robinson, E. W. Kellogg and H. A. Tyler accompanied Dr. Boyd on a trip from Paducah to Florence, Ala., up the Tennessee River. Last year the class visited Dr. E. B. Cooley, Danville, Ill., and in 1919, Dr. J. Minahan, Green Bay, Wis.

IOWA

Balsa Wood for Shoes.—The University Hospital, Iowa City, has had imported from Honduras a log of Balsa wood to be used for building lifts on shoes for orthopedic cases. This wood is only one half the weight of cork.

LOUISIANA

Examination of Restaurant Employees.—In cooperation with the city board of health, Child's restaurant in New Orleans has submitted its eighty-five employees to a rigid medical examination by the city health officers. According to a statement of the manager of the restaurant, Child's restaurants all over the country are having their employees examined, and giving them health certificates.

MARYLAND

Personal.—Dr. John Howland, Baltimore, professor of pediatrics at the Johns Hopkins Medical School, director of the Harriet Lane Home, and pediatrician-in-chief of the Johns Hopkins Hospital, has declined the offer of the medical school, at Harvard University, to become professor of children's diseases at that institution. Dr. Howland will remain at the Johns Hopkins.——No decision has been reached in the matter of the selection of a successor to Dr. William S. Thayer, Baltimore, as professor of medicine.——Dr. Joseph Alfred Chatard, Baltimore, has been appointed by Governor Ritchie a member of the state lunacy commission, to fill the vacancy caused by the resignation of Dr. Henry M. Hurd, Baltimore.

Election of Officers.—At the reunion of the alumni of the University of Maryland held, May 30-31 and June 1, in Baltimore, the following officers were elected: Dr. John B. Schwatka, Baltimore, was reelected president; Drs. James M. H. Rowland, Baltimore, Robert P. Bay, Baltimore, and Guy Steele, Cambridge, vice presidents; Dr. William S. Love, Baltimore, secretary; Dr. Charles U. Smith, Baltimore, treasurer, and Dr. William J. Todd, Mount Washington, necrologist. Drs. James C. Lumpkin, Baltimore, Walter D. Wise, Baltimore, Hugh W. Brent, Baltimore, William B. Perry and Benjamin Merrill Hopkinson, Baltimore, were elected to the executive committee and Drs. John R. Winslow, Robert L. Mitchell, Baltimore, William J. Todd, Mount Washington, Hiram Woods, Baltimore, and Frederick R. Malone, Greensboro, were chosen to serve on the advisory council.

University of Maryland Physic Faculty Resigns to Reorganize.—Members of the Physic Faculty, which is the medical faculty of the University of Maryland Medical School, have placed their resignations in the hands of Dr. Albert F. Woods, president of the university. This action has been initiated by the medical men themselves in order that the faculty might be reorganized on a "half-time pay" basis. At present many of the faculty give half of their time and sometimes considerably more without any remuneration. Just when the reorganization will take place depends largely on how soon funds become available to increase the work of the institution and develop it in accordance with the plans that have been made. The plans call for doubling the $500,000 a year now expended by the hospital and medical school for running expenses, and providing a building fund, about $1,000,000 of which would be used for construction and equipment of new units to the institutions.

Experiment in Public Health Work.—Dr. Richard B. Norment, Jr., assistant surgeon in the U. S. Public Health Service, has been appointed by the government to organize and direct under the immediate supervision of the state board of health an experiment in public health work, which is expected to produce far-reaching results for Maryland. In appointing him for this work the government has relieved him of his duties as epidemiologic aide to Maryland. Plans have been made to develop in some county in Maryland an ideal health administration as a demonstration of what can be done when means are provided to apply all that modern science has developed as practical in stamping out disease. Cooperating with the U. S. Public Health Service will be the state department of health, the School of Hygiene and Public Health of the Johns Hopkins University and the International Health Board. All these agencies will participate in the financing of the demonstration and in furnishing personnel. The experiment will cost about $28,000 a year. No definite plans have been completed, but it is understood that the state board of health will be looked to as the administrative unit through which the others will work.

MICHIGAN

Meeting of Industrial Physicians and Surgeons.—In connection with the meeting of the state medical association, the Michigan Association of Industrial Physicians and Surgeons held its meeting at Bay City, May 24, under the presidency of Dr. Harry N. Torrey, Detroit. Dr. Francis D. Patterson, Philadelphia, secretary of the National Association, delivered an address.

State Medical Meeting.—The fifty-sixth annual meeting of the Michigan State Medical Society was held, May 24-26, at Bay City, under the presidency of Dr. Angus McLean, Detroit. Visiting physicians who appeared on the program were: Dr. Curtis Field Burnam, Baltimore, who spoke on "Radium"; Dr. Thomas Hubbard, Toledo, Ohio, "Diagnosis and Treatment of the Disease of Esophagus," and Dr. Mazyck P. Ravenel, Columbia, Mo., president of Public Health Association, "The Influence of Disease on History." The following officers were elected for the ensuing year: president, Dr. Frederick C. Warnshuis, Grand Rapids; vice president, Dr. Guy L. Kiefer, Detroit; secretary-treasurer, Dr. Grover C. Penberthy, Detroit.

MINNESOTA

Personal.—Dr. Harold E. Robertson, Minneapolis, director of the department of pathology and public health at the University of Minnesota, has been transferred to the graduate school at the Mayo Foundation, Rochester.

Consolidation of Three Offices.—The U. S. Public Health Service, the Federal Board of Vocational Rehabilitation, and the Bureau of War Risk Insurance in the tenth federal district have consolidated with headquarters in Minneapolis. Dr. L. A. Walker, formerly director of the Public Health Service, will direct the new organization. All business of the combined departments will be handled at Minneapolis instead of being forwarded to Washington, D. C. Minnesota, North and South Dakota and Montana are the states in the tenth district.

MISSOURI

State Medical Secretaries.—The thirteenth annual meeting of the Missouri Society of Medical Secretaries was held, May 24-26, at St. Joseph in connection with the state medical meeting.

State Medical Meeting.—The annual meeting of the Missouri State Medical Association was held, May 24-26, at St. Joseph, under the presidency of Dr. Wilson J. Ferguson, Sedalia. The officers elected for the ensuing year are: president, Dr. Albert H. Hamel, St. Louis; vice presidents, Drs. Bernard W. Hayes, Jackson; Clarence W. Russell, Springfield; Thornton E. Moore, Trenton; Godfrey O. Cuppaige, Moberly; Horace W. Carle, St. Joseph; secretary, Dr. Edward J. Goodwin, St. Louis (reelected), and treasurer, J. Franklin Welch, Salisbury (reelected). The association endorsed the referendum movement for the repeal of senate bill 433, with only two dissenting votes, and pledged itself actively to cooperate with the Missouri Public Health League in every possible manner to insure the full success of the movement. The 1922 meeting will be held next May in Excelsior Springs.

NEVADA

State Medical Meeting.—The Nevada State Medical Society will hold its annual meeting at Elko, June 24-25.

NEW HAMPSHIRE

State Medical Meeting.—The one hundred and thirtieth annual convention of the New Hampshire Medical Society was held at Manchester, May 26-27, under the presidency of Dr. Alpha H. Harriman, Laconia. The officers elected for the ensuing year are: president, Dr. Charles S. Walker, Keene; vice president, Dr. Herbert L. Smith, Nashua; secretary and treasurer, Dr. Dennis E. Sullivan, Concord.

NEW YORK

Benefit for Ossining Hospital.—The Sleepy Hollow Club gave a "Fiesta Mexicana" for the benefit of the Ossining Hospital which realized the amount of $2,000.

New York City

Two Typhus Cases in Brooklyn.—Two new typhus cases have been reported in Brooklyn to the health department. One has been isolated in the Beth Moses Hospital and the other in the Jewish Hospital.

Hoffman Island to Have Water Supply System.—The House bill appropriating $500,000 for the improvement of the health station at Quarantine includes a sum to meet the expense of installing a water supply system on Hoffman Island.

Degrees Conferred by Columbia University.—Honorary degrees of Doctor of Science were awarded to Mme. Marie Sklodowska Curie, John Cambell Merriam, president of the Carnegie Institute of Washington, and to Dr. Samuel Lambert, dean emeritus of the Columbia Faculty of Medicine. The degree of Doctor of Medicine was conferred on 151, among whom were six women, the first to receive degrees from the College of Physicians and Surgeons of Columbia University.

Personal.—Dr. Royal S. Copeland, health commissioner, received the honorary degree of Master of Arts at the Hahnemann Medical College and Hospital, Philadelphia, and made the principal address to the graduating class.——Dr. Smith Ely Jelliffe was made an Honorary member of the Société de médecine mentale de Belgique at its recent reunion.——Dr. LeRoy R. Stoddard sailed on the Holland-American liner *Nieuw Amsterdam* to return the visit of Dr. Julien Bourguet, who came here last fall to study American methods of making over battle-scarred faces. Dr. Stoddard will lecture before the French Academy of Medicine, and he will show moving pictures demonstrating his method of work.

PENNSYLVANIA

Hospital News.—St. Margaret Memorial Hospital, Pittsburgh, announces the recent opening of a new wing to be utilized by the department of pediatrics. The new department, which will be able to accommodate thirty-five patients, will be in charge of Dr. Percival J. Eaton. Under Dr. Homer Grimm, the department of roentgenology has been reorganized and modern equipment installed.

Cancer Clinic.—Because of the alarming increase of cancer each year, a national effort is being made to stop it. A special cancer clinic was held at St. Luke's Hospital, Bethlehem, by Dr. George E. Brewer, New York, and Drs. John G. Clark and Henry K. Pancoast, Philadelphia, which was attended by physicians and surgeons of the Lehigh valley. The public meeting was held in St. Luke's auditorium at which many facts concerning cancer were presented by physicians.

Philadelphia

Personal.—Dr. Levi J. Hammond of the surgical staff of the Methodist Episcopal Hospital delivered the address at the graduating exercises of the Methodist Episcopal Hospital Training School held, June 2, in St. Luke's Church.

President of Jefferson Medical College Receives Degree.—An interesting feature of the commencement exercises, June 8, of the Jefferson Medical College was the conferring of a degree of doctor of laws on William Potter, who, for more than thirty years has been the president of the college.

Jefferson Alumni Banquet.—Alumni of the Jefferson Medical College attended the largest gathering of the kind ever held in the history of the institution when the annual banquet of the alumni association was held in the ballroom of the Bellevue Stratford, June 3. John W. West, president of the association, acted as toastmaster, and the speakers included Director of Public Welfare Ernest Tustin, Alba B. Johnson, Dr. Hobart A. Hare and Dr. Wilmer Krusen, former director of public health.

Changes at Jefferson.—Dr. Edward E. Montgomery, after having held the chair of gynecology at Jefferson Medical College for twenty-nine years, has resigned from all active college work, but will continue his private practice. Dr. Montgomery has been made professor emeritus at Jefferson Medical College and Dr. Brooke M. Anspach has been elected to fill the vacancy made by Dr. Montgomery's resignation. Dr. Anspach was graduated from the medical department of the University of Pennsylvania in 1897, and is a member of the American Gynecological Society.

RHODE ISLAND

Gift to State Medical Society.—The outstanding feature of the one hundred and tenth annual meeting of the Rhode Island Medical Society held, June 2, at Providence, under the presidency of Dr. Jesse E. Mowry, Providence, was the gift of $5,000 to the society, by Dr. Edward M. Harris, Providence. The fund will be divided, $3,000 going toward the endowment and $2,000 toward printing expenses. The officers elected for the ensuing year are: president, Dr. George S. Mathews, Providence; first vice president, Dr. Frank E. Peckham; second vice president, Dr. Arthur T. Jones; treasurer, Dr. James W. Leach, all of Providence. Dr. Halsey DeWolf,

secretary of the trustees of the Caleb Fiske Fund, announced that under the terms of the fund a prize of $200 will be awarded at the annual meeting, in 1922, for the best essay submitted on "Radium Therapy." As none of the essays submitted on the subject of "Compulsory Health Insurance" were of sufficient merit, no awards for the prize were made this year by the trustees.

TEXAS

Personal.—The appointment of Dr. James D. Blevins, Beaumont, as acting assistant surgeon, U. S. P. H. S., has been announced. Dr. Blevins will succeed the late Dr. Oscar Davis as representative of the service with the Texas State Board of Health as venereal control officer.

WEST VIRGINIA

Personal.—Dr. William Thornton Henshaw, Martinsburg, has been appointed by Governor Morgan to be state health commissioner for West Virginia.

WISCONSIN

Health Laws Adopted.—The state legislature, which recently adjourned, adopted a number of laws on health subjects, among them one requiring a full-time health commissioner in cities of 25,000 or over. Bills were also adopted increasing the number of communicable diseases subject to notification or quarantine; forbidding the advertisement of any treatment of venereal diseases, and increasing the appropriation for the state board of health. The bill repealing the compulsory vaccination law was defeated in the senate by a vote of 20 to 9.

WYOMING

Appointments to State Board of Health and State Board of Medical Examiners.—Governor Carey, May 23, appointed Drs. Galen A. Fox, Cheyenne; Jesse D. Lewellen, Powell; Edward S. Lauzer, Rock Springs, and Frederick A. Hodson, Sheridan, as members to reorganize the board of health. He appointed the following members for the state board of medical examiners: Drs. Albert B. Tonkin, Riverton; C. O. Edington, Laramie; Charles E. Stevenson, Sheridan; Albert C. Hamilton, Thermopolis, and John D. Shingle, Cheyenne. The last three were reappointed. Dr. Albert B. Tonkin, Riverton, is the permanent secretary of the board, spending his entire time acting as the board's executive.

CANADA

Public Health.—There were 519 cases of venereal disease reported in Ontario in May, as against 191 in May, 1920. There were 533 cases of smallpox reported in May, 1921, as against 290 in May, 1920.

Ontario Medical Association.—At the annual meeting of the Ontario Medical Association, held in Niagara Falls, Ont., June 1-4, Dr. Frank J. Farley, Trenton, was elected president; Dr. Edward R. Secord, Brantford, first vice president; Dr. Thomas C. Routley, Toronto, secretary, and Dr. George Stewart Cameron, Peterborough, treasurer. The next annual meeting is to be held in Toronto. Dr. Frank Billings, Chicago, delivered the address in medicine. The attendance was large, perhaps the largest in the history of the association, nearly 1,000 members being registered. This may necessitate the holding of a supplementary meeting in December, which may be deemed necessary to consider the whole question of the relation of the profession to the prescribing of alcohol. According to about 500 replies received to a questionnaire, the opinion obtains that approximately sixteen liquor prescriptions are needed a month in the practice of each physician.

GENERAL

Public Health Ambulance in the Philippines.—The department of public health of the Philippine Islands is planning to purchase a truck which will be used for propaganda and public health work in the different parts of the island. This special ambulance will carry clinical and surgical material for the treatment of all kinds of accidents and diseases besides popular literature, lantern slides, films and public health models.

Journal of the Philippine Islands Medical Association.—The Manila Medical Society aided by a grant from the Philippine General Hospital has just issued the first number of the *Journal of the Philippine Islands Medical Association.* It will contain the proceedings of the association and of the Manila Medical Society as well as clinical contributions of the various departments of the hospital. Contributions are also to be published from physicians practicing in other parts of the Philippine Islands.

Senate Approves Appropriation for Social Hygiene Board.—The Interdepartmental Social Hygiene Board may be reestablished as a result of the action of the Senate in approving an appropriation of $425,000 contained in the Deficiency Appropriation bill; of this amount $200,000 is to be used for assisting the states in protecting the military and navy forces against venereal diseases; $200,000 is to be used by the states for the prevention and control of venereal diseases outside of the army and navy; $25,000 is to be used for administration expenses of the board at Washington, D. C. If the House of Representatives acquiesces in the Senate action, the legislation will be effective. The action of the Senate was due largely to a plan for venereal disease control agreed on by Rear Admiral Stitt, Surgeon-General of the Navy, Surgeon-General Ireland of the Army and Surgeon-General Cumming of the Public Health Service, and submitted by them to the chairman of the Senate Committee on Appropriations.

Hospitalization Board Report Delayed.—The report of the Hospitalization Board appointed by Secretary of Treasury Mellon to select the sites for new government hospitals and the institutions already owned and operated by the government to be extended and improved has been delayed. Upon the recommendations made by this board depend the expenditure of the $18,500,000 appropriated by Congress at the last session for larger hospital facilities to care for the disabled soldiers of the war. The delay in the report is due to a measure introduced in Congress by Representative Langley of Kentucky amending the original act, which provided that $6,100,000 should be expended for the extension of present hospitals owned by the government and the other $12,400,000 for the erection of five new hospitals. Mr. Langley's amendment removes this restriction and gives the Secretary of the Treasury the authority to expend the entire amount either for new hospitals or for the reconstruction of old ones. At a recent meeting members of the Hospitalization Board composed of four of the most prominent physicians in the country postponed its report pending the passage of this amendment by Congress so that its recommendations, many of which have already been reached, will harmonize with the law.

Norwegian Physicians Receive Questionnaire on Prohibition.—The Norwegian Physicians' Association is circularizing Norwegian physicians residing in America in an endeavor to find out something regarding the operation of the Volstead Act. The following questions are being asked:

1. What position do the American physicians as a body take with respect to the prohibition of alcohol?
2. Do the American physicians regard alcohol as a suitable medicine, and if so, for what particular diseases?
3. Is alcohol regarded as an active prophylactic against colds, influenza, pneumonia, etc., and if so, in what form?
4. Does the American medical profession regard prohibition as injurious from a medical point of view?
   Has prohibition prevented patients from securing sufficient alcohol for medicinal purposes?
5. How many American physicians have taken out "permits"?
   Have many physicians transgressed the law and been punished, and about how many?
   How many registered physicians are there at present in the United States?
6. Are the physicians who have taken out permits bothered by persons that want alcohol but are not ill?
7. Are physicians bothered with requests for prescriptions for alcohol for prophylactic purposes?
8. Are there any reliable statistics of diseases from alcohol before and after prohibition, and if so, what do they indicate?
   Are accidents caused wholly or in part from the use of alcohol increasing or diminishing since prohibition went into effect?
9. Is there any difference in the attitude of country and city physicians in regard to alcohol prescriptions?
   And is there any difference in the attitude in this respect of physicians who practice principally among foreign born, particularly Norwegians and those who practice principally among native Americans?
10. Please state anything further you may wish in regard to the relation of physicians to the alcohol question and the prescribing of alcohol as a medicine.

New Volstead Bill Reported Favorably.—The bill introduced by Representative Volstead of Minnesota prohibiting the sale of beer for medicinal purposes has been reported favorably to the House of Representatives for passage after extended hearings. The report declares that the main purpose of the measure is to prevent the use of beer as medicine and is necessary for the enforcement of prohibition because of an opinion of former Attorney-General Palmer, permitting the sale of this beverage on a physician's prescription. "The effect of that opinion," the report adds, "is to take from the Commissioner of Internal Revenue, control of the permits and prescriptions and lodge that control in those who would profit by their abuse. It is idle to argue now whether that opinion is right or wrong, as it is considered binding on the administration until it is set aside by the courts." The report

further declares that the evidence presented to the committee at its hearings shows overwhelmingly that beer has never been recognized as medicine or essential to the cure of any disease.

The section of the bill relating to doctors and physicians, which was changed from its original form by the committee follows:

"No physician shall prescribe nor shall any person sell or furnish on any prescription any vinous liquor that contains more than 24 per cent. alcohol by volume, nor shall anyone prescribe or sell or furnish on any prescription more than one-fourth of one gallon of vinous or any liquor that contains more than one-half pint of alcohol, for use by any person within any period of ten days.

"No physician shall be furnished with more than one hundred prescription blanks for use in any period of ninety days, nor shall any physician issue more than that number of prescriptions within any such period unless on application therefore he shall make it clearly apparent to the commissioner that for some extraordinary reason a larger number is necessary, whereupon the necessary additional blanks may be furnished him."

LATIN AMERICA

Plague in Mexico.—Plague has reappeared at Tampico, Mexico. Thirty-eight cases were reported during April and May with twenty-five deaths. Antiplague measures which had been abandoned are being enforced again by the government.

Personal.—Dr. E. K. Tullidge of Johns Hopkins University is now in Mexico where he will visit the states of Tabasco and Veracruz to make some pathological studies on pernicious forms of malaria.——Dr. F. Castillo Najera is at present managing editor of the newspaper, *El Heraldo de México*.

Medical Society Elects Officers.—At a recent meeting of the medical society of Córdoba, Argentine, new officers were elected as follows: president, Dr. J. C. Lascano; vice president, Dr. R. Pedernera; secretaries, Dr. C. G. Carranza and J. B. Ferrer; treasurer, Dr. G. V. Stuckert; members, Drs. B. Galindez, A. C. Magnin and J. Orrico.

FOREIGN

Typhus Fever in Spain.—There have occurred several cases of typhus fever in the province of Murcia, Spain.

Memorial to Medical Victims of the World War in Belgium.—A monument was unveiled, May 29, in the Parc Léopold at Brussels in memory of the physicians, pharmacists and other members of the medical profession who died for their country during the World War.

Gifts to the German Psychiatry Institute.—Professor Kraepelin of Munich announces that the German Institute for Research in Psychiatry, of which he is director, has received gifts and bequests this year totaling over 1,500,000 marks, and the collections and the library have also been notably enriched by gifts.

Graduate Courses in Italy.—Practical two, three or four weeks courses in obstetrics and gynecology and in ear, nose and throat diseases have been organized at Naples, and courses on tuberculosis at Naples, Turin and Genoa. All are to be given by various professors on the respective medical faculties.

Personal.—Dr. Richelot, author of numerous works on surgical topics and president of the Académie de Médecine, has been appointed on the Carnegie Foundation to succeed the late Dr. Bucquoy.——An oil portrait was recently presented to Prof. K. Faber of Copenhagen on the twenty-fifth anniversary of his incumbency of the chair of clinical medicine. The presentation was made with much ceremony and tributes from friends.——A similar tribute is now being organized for the retiring professor of children's diseases at the University of Geneva, Dr. d'Espine.

Damages for Unjustified Seizure.—The *Bulletin Médical* relates that during a recent annual meeting of the organized otorhinolaryngologists of France, as Dr. Maurice rose to present an apparatus for the treatment of deafness, a policeman entered and seized the apparatus, a warrant for the seizure having been obtained by M. Zund-Burguet. The latter claimed that the apparatus was copied from one that he had invented for reeducation of the deaf. The courts have now decided that his claim was unjust, and he has been ordered to pay Dr. Maurice 25,000 francs as damages besides the costs of the suit, and publishing the court decision in twenty journals to be selected by Dr. Maurice.

Tribute to Mme. Curie.—Just before Mme. Curie left France for this country, she was given an ovation at Paris with a fête at the opera house to which the public thronged to do her homage. Prof. J. Perrin of the Sorbonne told of the devoted research of the Curies in their wooden laboratory, and the way in which they gave the results of their work freely to science, keeping nothing for themselves, and even distributing to other research workers the precious substance which it had cost them such infinite pains to produce in minute quantities. Among other features of this gala public gathering "Pour la Science," Sarah Bernhardt read a poem by Rostand entitled "Hommage à la Science." The audience contributed, it is said, 50,000 francs which was given to the Radium Institute at Paris. Both the government and the university were represented in the ceremony, and the ministre de l'instruction publique delivered the opening address.

Graduate Courses in Paris.—Beginning July 1 a number of two, three or four weeks courses have been organized by groups of members of the Paris medical faculty, including Hartmann's, on diseases of the digestive tract and biliary apparatus, with operations and dissections; Gosset's on surgical technic (in English); Gilbert's on clinical medicine; Vaquez' on cardiovascular disease; Bernard and Renon's on tuberculosis, and Brumpt's on parasitology. In September, Faure's course on gynecology. August 17 to September 2, Nobécourt's course on children's diseases; October, Prenant's fourteen hour course on histology; October 5 to 30, Letulle's course on pathologic anatomy, and in October a series of twelve lectures by Pinard at the Puericulture School. A number of specialist professors will share in each course as a rule, with roentgenologists, etc. For further information and details address M. E. Weisweiller, at the Puericulture School, 64 rue Desnouettes, Paris, Tel. Saxe 75-78. The fees range from 50 to 80 francs, or 150 francs for each of the courses in the clinics. For all information in regard to medical matters otherwise, address or call at the A. D. R. M. at the Faculté de Médecine de Paris. This is the abbreviation of the Association pour le développement des relations médicales. A course of seventy-three lectures and demonstrations on dermatology at the Saint-Louis Hospital has just been concluded. This is a three months course, held regularly twice a year, beginning in April and October; the fee is 150 francs. Special courses will be organized on demand. All are open to foreign physicians and students. For information on these courses, address Dr. M. Bloch, Hôpital Saint-Louis, Paris.

Deaths in Other Countries

Dr. **C. Sigaud** of Lyons, author of works on digestion, human morphology, etc., aged 59.——Dr. **Jorge Aguilé** of Coamo, Porto Rico.——Dr. **E. Späth** of Esslingen, aged 80.——Dr. **L. Pfeiffer** of Weimar, one of the founders of the German Aerztevereinsbund and author of works on vaccination, applied anatomy, etc., aged 80.——Dr. **G. v. Dall' Armi** of Munich, aged 69.——Dr. **Morel** of Lyons.——Dr. **E. Housé**, the creator of the school of anthropology at Brussels.——Dr. **W. Koster**, formerly professor of ophthalmology at the University of Leyden, aged 55.

Government Services

Dr. Rows to Advise Public Health Service

Dr. R. G. Rows of England, it was announced by the Surgeon-General of the U. S. Public Health Service, is shortly to visit Washington, D. C., to confer with the Surgeon-General and with the director of the War Risk Insurance Bureau in regard to mentally disabled soldiers. After this conference he will go to Perryville, Md., where the service keeps its great medical stores, to attend a clinic at the large Public Health Service hospital there and to familiarize himself with the types of cases under treatment. He will also attend the American Psychopathological Association meeting at Atlanta.

Standarization of Military Medical Teaching

Surgeon-General Ireland is planning to call a conference at the Medical Field Service School at Carlisle, Pa., in July, to bring about the standardization of teaching and instruction in the Medical Department of the Army. A revision of the textbooks will also be studied. This conference will be attended by all representatives of the Medical Department who are engaged in teaching functions throughout the country. The result of this conference will effect uniform instruction for medical officers in all their duties both in the field and in garrison. One of the main subjects to be taken up is "The Service of the Medical Department of an Infantry Division in Combat."

Foreign Letters

LONDON

(From Our Regular Correspondent)

May 9, 1921.

The Prevention of Venereal Diseases

The battle between the National Council for Combating Venereal Diseases and the Society for the Prevention of Venereal Diseases continues with some acrimony. These rival manifestoes have been published:

SOCIETY FOR THE PREVENTION OF VENEREAL DISEASES

There are two important facts which cannot be ignored:

1. Venereal diseases are eating into the heart of our nation and causing untold misery, suffering, premature decay and death.
2. The clearest and most definite evidence exists to show that venereal diseases can be readily prevented by the adoption of immediate disinfection after exposure to infection.

NATIONAL COUNCIL FOR COMBATING VENEREAL DISEASES

Prophylaxis is not advised because:

1. Adequate instruction of the civil population as a whole in chemical disinfection is neither possible nor desirable.
2. Self-disinfection would frequently be imperfect, in which case infection would follow.
3. The provision of prophylactic outfits would encourage exposure to infection, and therefore also lead to an increase of infection.
4. It is not applicable to women.

Discussing the matter in *Public Health*, a health officer, Dr. Quine, writes:

Venereal disease is the physical concomitant of a moral evil. It is a part, it is not the whole. Harmful and destructive as it may be, it is not strong enough to drag our nation to destruction. On the other hand, history teaches that a lowering of public morality, if progressive, has sufficed in the past, and would suffice in the future, to lead to the fall of empires and nations. The issue is clear-cut. Any method of individual prophylaxis requires for its success that all youths and men should while still chaste have received instruction in the hygiene of fornication. It is one thing to teach children the physiology of sex and prepare them for their natural future as husbands and wives; such teaching can be naturally associated with the inculcation of moral principles; it is quite another thing to teach boys how prostitutes may be visited with impunity. If the "packet system" is to have the full backing of the state, the municipalities, the schoolteachers, the clergy, and all the forces which make up the machinery of our society, it could not fail to occur that illicit intercourse would rapidly cease to be a private wrong-doing; it would become a public vice. I see only two measures, the prosecution of which will stand the test of time, the raising of the standard of conduct and the treatment of existing venereal disease.

In a letter to the *Lancet*, Lord Gorell, president of the National Council for Combating Venereal Diseases complains of the partiality of the *Times* in supporting the Society for the Prevention of Venereal Diseases and the same time refusing him permission to state the one real point of difference between the policies of the two organizations, which lies in the inability of the Society for the Prevention of Venereal Diseases to accept the following definition of policy by the National Council for Combating Venereal Diseases:

Detailed official instructions as to the use of disinfectants in this connection will, if issued to the public on sale with the disinfectants, not only have an appearance of official condonation, but also lead to the assumption that such disinfectants are an official guarantee to the purchaser against contracting disease; moreover, such instructions, unless followed with scrupulous exactness after definite and personal tuition in their practice, may lead to an aggravation rather than a diminution of the incidence of these diseases.

The Campaign Against Tuberculosis

A tuberculosis bill is being passed through Parliament which will force local authorities to adopt schemes approved by the Ministry of Health. In the meantime the Public Health Committee of the London County Council has decided not to ask the council to approve of any considerable addition to the number of beds in occupation. This decision has been arrived at on two grounds: Institution treatment has proved disappointing, and there is great need of saving. Further, the committee does not believe in rushing to a sanatorium every case or suspected case of tuberculosis. It believes in a preliminary stay in hospital for diagnosis. The need for this is shown by the high percentage of error in diagnosis revealed by the following figures arrived at in the Brompton Hospital for Consumption and the City of London Chest Hospital:

	No. of Cases Observed	Tuberculous	Not Tuberculous
Cases accepted as tuberculous by Ministry of Pensions, but queried by tuberculosis officers.	73	11	62
Cases accepted by Ministry of Pensions and by tuberculosis officers as tuberculous, but passed through observation beds	21	3	18
Civilians recommended by tuberculosis officers for diagnosis	48	18	30
Civilian cases diagnosed by tuberculosis officers as tuberculous, but passed through diagnostic beds	16	2	14

Thus, 78 per cent. of the diagnosed cases were not tuberculous.

The Spahlinger Treatment of Tuberculosis

Replying to a question in the House of Commons, Sir A. Mond, Minister of Health, said that the Spahlinger treatment of tuberculosis had been under the consideration of the medical authorities in this country since 1914. During the last few months the Ministry of Health, following its usual practice of investigating the efficacy of all new methods of treatment of tuberculosis, had given special attention to the matter at the particular request of M. Spahlinger. The difficulty was in the supply of the serum and in the fact that reliable details of the clinical evidence were not forthcoming. An undertaking had been given that when supplies of the serum became available for independent scientific investigation in this country the Ministry of Health will facilitate an exhaustive examination of its efficacy. In the opinion of its medical advisers there was not yet available a sufficient body of evidence to justify the claims made for the treatment.

In the meantime, the treatment continues to be "boomed" in the lay press. It is alleged that 75 per cent. of the patients treated in 1913-1914 in this country have been traced and are alive. The "promoters" (whatever that may mean) of the treatment are stated to be awaiting the reports of physicians. If these should be favorable, they will aim at obtaining sufficient financial support to found an institution in England with M. Spahlinger at its head. Why, if the treatment is so valuable, it has emigrated from its native Switzerland before it could be put on a financial basis is not explained. It is added that unless support is soon received in England, we shall lose the services of M. Spahlinger, who has received a tempting offer from America.

PARIS

(From Our Regular Correspondent)

May 6, 1921.

Medicolegal Aspects of Cerumen

It is a well known fact that certain industries mark with peculiar signs the workmen who are engaged in them. Such signs, which may be designated as occupational signs, serve occasionally as means of identifying their possessors. The seat and the nature of the signs vary with the several occupations. They may be characterized by thickening of the epidermis, alterations of the skin, discolorations, deformations, or disturbances affecting muscle functioning, aponeuroses, tendon sheaths, or the bones and joints. The signs may be located on the hands, the arms, the trunk, the legs, the feet or on other parts of the body. All these signs have been studied in their minutest details and are described in all works on medical jurisprudence; but not a single one of these works mentions the occupational signs that are furnished by an examination of the cerumen for foreign bodies. Dr. S. Icard recently published an article on occupational signs, in the *Marseille médical*. He calls attention to the fact that every person who has remained for any length of time in a dusty atmosphere retains in the external auditory meatus the unequivocal evidence of such stay. The dust slowly pene-

trates the external meatus and is deposited there, becoming mixed with the cerumen, by which it is retained. In fact, most careful cleansing never succeeds in removing from the ear all the wax that it contains. A systematic cleansing, moreover, requires the use of a small instrument, the *cure-oreille*, or earpick, the manipulation of which would not be devoid of danger if a complete curettage of the external meatus should be undertaken. Furthermore, among the general run of workmen, cleansing of the ears is not given a great deal of attention, and the summary fashion in which this is carried out with the aid of a corner of a towel usually results in crowding farther back any foreign bodies that may be located near the exterior outlet of the external meatus. Therefore, if these foreign bodies are withdrawn, along with the cerumen in which they are embedded, and are carefully examined, they will frequently furnish evidence in regard to the environment of the subject and will thus become a supplementary means of identification. For a number of years past, with the aid of Monsieur Jean Maurel, whenever it chanced that any of his clients were employed in a dusty occupation, Icard has utilized the opportunity to examine the cerumen of the patient. The results thus secured have always been conclusive, and Icard soon reached the conviction that the occupational signs furnished by an examination of the cerumen could, under certain circumstances, be counted on to render service in certain medicolegal cases. He found that by simply examining the cerumen he could ascertain in what occupation the workman was engaged or had been engaged, even though the latter had not been employed at all for a considerable time. In a day laborer who had been working several months at the wharves, unloading coal, Icard found that the cerumen contained abundant traces of coal dust, although the workman, for more than a year past, had not been in direct contact with coal. In a workman who had been engaged in roasting coffee he found in the cerumen very characteristic dust of vegetable origin, which was derived from the hulls that cover the coffee beans. These hulls during the process of roasting become detached from the beans, and many small particles are thrown into the atmosphere. It had, however, been several months since the workman visited the plant. Icard found also bits of hair in the cerumen of a barber, and grains of starch in the cerumen of a baker, although both of these men had long since ceased to work at these trades.

A Japanese Method of Abdominal Massage

Drs. Léon Mac-Auliffe and G. Marie lately called the attention of the Academy of Sciences to a new method of abdominal massage introduced by Nakamura of Tokyo. The general principle of the method may be thus described: The subject lies in a dorsal, recumbent position, and the operator compresses with his thumb, gently and as deeply as possible, certain points of the abdomen. He waits until the tactile sensation thus secured (inflation, hardness, contractions, arterial beat, etc.) has become modified; then the pressure is slowly released. Nakamura considers ten seconds of increasing pressure and twenty-four seconds of relaxing pressure to be the average correct amount. The pressure will vary, naturally, in each case, but these areas should receive special attention: (1) a horizontal plane passing through the umbilicus, first 10 cm. to the left of this point and then 5 cm. to the right; (2) a plane passing two fingerbreadths below the xiphoid process, first 2 cm. to the left and then 2 cm. to the right of the median line; (3) a horizontal plane lying just between the two preceding and beginning with the external border of the rectus muscle to the left, emphasizing the median line and continuing several centimeters to the right of this. This peculiar form of massage brings about an excitation of the tendinous insertions of the rectus muscles; also a mechanical irritation of the internal branches of the seventh, eighth, ninth, tenth and eleventh dorsal or intercostal nerves and the nerves of the upper abdominal zone. Since all these nerves are distributed to the muscles and the integument of this region and innervate also the inferior intercostal muscles, they are consequently in relation to the respiratory movements, and, furthermore, since the sensory nerves of the anterior wall of the abdomen originate in the spinal nerves, which receive branches from the adjacent ganglions of the sympathetic trunk, in which originate the greater and the lesser splanchnic nerves, this method of massage is found to exercise a favorable influence on the stomach, the pancreas, the bile ducts, the intestine, aortic pressure, the portal vein and its intrahepatic branches, the lacteals, glycosecretion and renal elimination.

BUENOS AIRES

(From Our Regular Correspondent)

April 8, 1921.

Malaria Epidemic

Reports and telegrams, sent by the inspectors of national lands, state that there is a serious epidemic of malaria in the territory of Misiones bordering on Brazil and Paraguay. There were some endemic foci before; but, owing to the recent floods, the disease has spread and is still on the increase. The problem has been aggravated by a strike on river steamers which has prevented sending physicians and medicines. The national department of public health has sent Dr. Falcón and a sanitary guard to combat the epidemic and report whether the affected region should be included among those legally considered as malarial.

Antimalaria Work

Last year antimalaria work was conducted in the provinces of Jujuy, Salta, Tucumán, Catamarca and La Rioja y Santiago del Estero, which comprised a surface of 180,000 square kilometers with a population of 650,000 inhabitants. The work was in charge of twenty-seven physicians, who had at their disposal thirty dispensaries and fifty assistants for treatment and propaganda purposes. Seven hundred and forty-seven kilograms of quinin were employed both as a prophylactic and as a remedy, and 143,384 patients were treated. The malaria index during the summer was 15.27 per cent. at Tucumán, 42 per cent. at Jujuy, 22 per cent. at Salta, and 7 per cent. at Catamarca among 5,391 persons examined. There seems to be a decrease of primary malaria from 27.7 per cent. (in 1910) to 6.9 per cent. in 1920. Some leveling and filling in work (79,000 cubic meters at Santiago del Estero), cleaning of water spouts, drainage, etc., has been carried out. There were also distributed 2,650 mosquito nets. The personnel in charge of the antimalarial work devoted themselves also to vaccinating the people in accordance with existing laws on this subject.

University News

The present unstable situation does not seem to improve in most of our universities, which, in fact, are ruled by the students and some people who know how to handle the latter. The only university which seems to be well organized and to work harmoniously is the Buenos Aires University which, at least in the school of medicine, even seems to make progress. On the other hand, at Cordoba, a recent conflict compelled the dean of the medical school to resign; the director of the University of La Plata has also resigned, and other acts of indiscipline have occurred. Those in power forced the employment of professors without open competition, forbade those legally entitled to appointments to enter the university and compelled the removal of all persons they disliked. The result has been the removal of a large number of the best professors, apparently through a desire to replace them by foreign teachers.

BERLIN

(From Our Regular Correspondent)

May 6, 1921.

Modern Care of the Insane

With the creation, shortly before the outbreak of the war, of special welfare centers for the care of persons suffering from mental and nervous diseases, Germany entered on an entirely new system of caring for the insane. Berlin, Essen and Frankfort-on-the-Main were the first cities to adopt the new method. As explained by Professor Raecke, the Frankfort psychiatrist, writing in the *Westdeutsche Aerzte-Zeitung*, the main feature of the system is the establishment of a center of information and counsel. As a rule, the relatives of a person who is or is suspected of being unbalanced mentally meet here by appointment and present their complaints and give expression to their fears. Later the person concerned is summoned to appear. He generally responds voluntarily to the summons; otherwise he is sent for. Only in urgent cases is there immediate commitment to the hospital. If it is in any wise possible, the attempt is made to have the patient's own family assume charge of the case under the supervision of the nearest welfare center in the vicinity. The assurance is given that the patient will receive "family protection," as the term goes. The necessary advice is given in matters concerning care of the patient, eventual deprivation of majority rights, divorce and in any legal matters that may arise in connection with the case. Attests are furnished gratis to those who are unable to pay. Perhaps even more important is the further provision whereby the welfare center takes on itself the added responsibility of examining into demands for the dismissal of patients from hospitals for the insane. In numerous cases the release of patients cannot be effected because they are liable to suffer a recurrence or because of some persisting defect that renders them incapable of ordering their lives without assistance, there being no comfortably situated relatives who are willing to stand back of them and undertake the responsible and disagreeable task of supervision. Here, again, the welfare center is able, by continually furnishing advice, to lighten materially the problem of the relatives, so that they are much more inclined than they would otherwise be to assume the responsibility of the patient's care. Of late the question has been raised whether small benefits should not be allowed needy relatives who will consent to assume the care of patients. In view of the present high cost of institutional care, such a plan would constitute a considerable saving. The goal to be sought would then be that in the future only cases of acute psychosis or of paroxysmal insanity occurring during the course of chronic diseases would be referred for institutional treatment, whereas all quiet, chronic cases would be cared for outside of institutions.

Identification of Individuals by Means of Roentgen Rays

In Langenbeck House, Dr. Ludwig Hirsch, a Berlin physician and criminologist, delivered recently a lecture on identification by means of roentgen rays. The development of the modern police identification service is characterized by three principal features: photography, the Bertillon system of anthropometry, and dactyloscopy, or thumb and finger prints. After the invention of the photographic dry-plate in 1871, the criminal album, or so-called rogues' gallery, was instituted, which consisted of a vast number of photographs of criminals. These were accompanied by a list of nicknames and body marks. The photographs were arranged according to different classes of criminals. But, aside from the fact that subjectively induced changes in features and modifications that took place naturally in the course of years made identification difficult, it was soon found that the vast and rapidly increasing number of criminal photographs was in itself a hindrance when it came to the rapid identification of an individual. Therefore, the well known Bertillon system of anthropometry, which was introduced into the police service in 1892, constituted a big step forward. At the basis of this method lies the concept that a certain number of body measurements, after growth is completed, undergo no further change. The disadvantages of the system lie in the fact that the measurements must be taken with special instruments and by specially trained officials if uniform results are to be secured. In the case of juvenile culprits the method proved to be unreliable for the reason that the relation of various measurements was found to be disturbed by growth. But, even after growth was completed, certain differences in the ascertained measurements sometimes presented themselves, which were due to the increase or decrease in the mass of the soft parts, and especially of the fatty tissue, that covered the bones. The irregular life led by criminals is given as the reason for the fact that often, within a very short time, marked changes of this nature are brought about. Since 1903 the method of dactyloscopy, or the use of finger prints, has been more and more widely introduced into the criminologic service. It is based on the fact that there are probably scarcely two persons on earth in whom the papillary lines of the volar surface of the last finger joint are identically alike, and furthermore that these papillary lines undergo no changes in a given individual throughout the course of his lifetime. The lines are, to be sure, in childhood closer together than in later years, but remain unchanged in their form and direction. The finger-prints are arranged and indexed according to definite types; for example, arches, loops and whorls. But here, too, the ever increasing number of finger-prints registered and indexed under a given type makes it more and more difficult and time-consuming to identify given individuals. Dr. Hirsch, therefore, and likewise Dr. Bucky have hit on the idea of reviving to a certain extent the anthropometric method of Bertillon, but with this difference that in place of the inexact external measurements they propose utilizing the precise measurements of the bones securable by means of roentgen-ray illumination. In a series of subjects Dr. Bucky has made roentgenograms of certain finger bones and taken their measurements. To start with, the length of the first joint of the right middle finger and the measurements of three cross-sections (head base and center) were taken. On the basis of these four measurements alone it became apparent that in a fairly large group of persons there was no agreement between the measurements of the various individuals. The procedure can be made still more certain if the measurements of several bones are taken, since with the increasing number of figures the whole record becomes more exact and the differences between individuals stand out much more prominently. Just how many measurements will be necessary cannot be ascertained until the bones of a thousand persons or more have been measured. The method can either be employed independently or supplementary to the results of the dactyloscopic tests; especially in cases in which there is a great similarity in the formation of the papillary lines. In any event the advantages of such a roentgenologic identification system would be considerable. The method of registration could be reduced to a very simple form that would be intelligible to laymen so that it would not be necessary to employ specialists for the purpose. The recorded measurements could be easily telegraphed to distant localities. A further advantage lies in the absolute constancy of the recorded findings, since after the completion of growth no change in the dimensions of the bones has thus far been observed. Furthermore the procedure entails no heavy expense and requires no special skill or long individual training to carry it out, owing to the objective simplicity of the method. The technic consists in the simple illumination of one hand. The bone to be measured is adjusted orthodiagraphically and the measurements are read from a glass plate provided with a graduated scale. The measurement of the bones of one hand requires only three minutes.

Marriages

JOHN CLINTON FOSHEE, Grand Rapids, Mich., to Miss Lillian Merson of South Haven, Mich., May 17.

LEON B. STRATTON to Miss Myrtle C. Burke, both of Paso Robles, Calif., March 17.

MORRIS LOUIS FUCHS to Minnie B. Rubin, both of Philadelphia, June 7.

Deaths

Simon Baruch, New York; Medical College of Virginia, 1862; died, June 3, from heart disease, aged 80. Dr. Baruch was born in Germany, July 29, 1840. He received his preliminary education in Germany and after coming to America took up the study of medicine. During the Civil War he served as surgeon in the eld with the Confederate forces. Following the war he practiced medicine in Camden, S. C., from 1865 to 1881, when he removed to New York. Dr. Baruch served as president of South Carolina Medical Association in 1874, and as chairman of the South Carolina State Board of Health in 1880. After removing to New York he became much interested in the subject of hydrotherapy, becoming professor in this subject in the College of Physicians and Surgeons. He is given credit for introducing the municipal public bath in this country and such institutions have been named in his honor in Chicago and in New York. He was a prolific contributor to medical literature, his writings including numerous articles as well as several books on hydrotherapy. He served also as medical editor on the New York *Sun*.

William J. Burge, Edgewood, R. I.; College of Physicians and Surgeons in the City of New York, 1853; a member of the Rhode Island Medical Society; surgeon in the U. S. Navy during the Civil War; for three years president of the Providence Medical Association; died, May 28, aged 90.

Guy Carleton Bayley, Poughkeepsie, N. Y.; College of Physicians and Surgeons in the City of New York, 1872; a member of the Medical Society of the State of New York; for twenty-five years surgeon to Vassar Brothers' Hospital, Poughkeepsie; died, May 24, aged 70.

James E. Brooks, Blowing Rock, N. C. (license, North Carolina, 1897); a member of the Medical Society of the State of North Carolina; at one time superintendent of the North Carolina State Tuberculosis Sanatorium, Montrose; died, May 19, aged 50.

George R. Spratt, Coatesville, Pa.; University of Pennsylvania, Philadelphia, 1864; a member of the Medical Society of the State of Pennsylvania; for many years president of the Coatesville Board of Health; died, May 22, from cerebral hemorrhage, aged 81.

Samuel Andrew Johnston ● Indianapolis; Medical College of Indiana, Indianapolis, 1902; associate in rhinology, otology and laryngology in Indiana University, Bloomington and Indianapolis; died, May 20, from cerebral hemorrhage, aged 44.

Leander A. Spaulding, Bluffton, Ind.; Medical College of Ohio, Cincinnati, 1877; a member of the Indiana State Medical Association; at one time president of the Wells County Medical Society; died, May 11, aged 73.

Charles D. Briner, Williamsport, Ohio; Starling Medical College, Columbus, 1886; a member of the Ohio State Medical Association; mayor of Williamsport; died, May 20, from Bright's disease, aged 59.

Martin J. Nevinger, Philadelphia; Hahnemann Medical College of Philadelphia, 1898; a member of the staff of the Women's Hospital, Philadelphia; died, May 26, following an operation, aged 44.

John A. Bailey, Biggsville, Ill.; College of Physicians and Surgeons, Keokuk, Iowa, 1877; a practitioner of Biggsville for nearly half a century; died May 17, from cerebral hemorrhage, aged 76.

Daniel Greenlee Caldwell, Concord, N. C.; University of Maryland, Baltimore, 1885; a member of the Medical and Chirurgical Faculty of Maryland; died, May 13, from paralysis, aged 58.

Edgar Meyer Dinkelspiel, New York; University of California, Berkeley and San Francisco, 1899; a member of the Medical Society of the State of New York; died, May 23, aged 44.

Rives Andrew Manker, Memphis, Tenn.; Memphis (Tenn.) Hospital Medical College, 1908; a member of the Kentucky State Medical Association; died, May 19, from heart disease, aged 38.

Charles Florence McCarthy, Winchester, Mass.; Long Island College Hospital, Brooklyn, 1890; a member of the Massachusetts Medical Society; died, April 19, aged 51.

William K. Loughridge ● Omaha; Lincoln (Neb.) Medical College, 1894; at one time a member of the staff of the Swedish Mission Hospital; died, May 19, from nephritis.

Jacob A. Fields, Giddings, Texas; Tulane University, New Orleans, 1875; mayor of Giddings; at one time a member of the state legislature; died, May 13, aged 69.

Frederick Charles Vogel, Cincinnati; Medical College of Ohio, Cincinnati, 1900; a member of the Ohio State Medical Association; died, May 18, aged 45.

Harry Joseph Cummings ● St. Louis; Trinity Medical College, Toronto, 1889; a member of the staff of the City Hospital; died, May 15, aged 54.

Harlow A. Whitney, Northfield, Vt.; University of Vermont, Burlington, 1907; a member of the Vermont State Medical Society; died, May 19.

Irving J. Wardin, Independence, Calif.; Long Island College Hospital, Brooklyn, 1874; died in Los Angeles, May 10, from carcinoma, aged 69.

Benjamin Rush Hoyt ● Detroit; University of Michigan, Ann Arbor, 1872; a practitioner of Detroit for half a century; died, May 19, aged 72.

Francis Nelson Pilcher, Columbus, Ohio; Columbus (Ohio) Medical College, 1891; died, May 18, following a surgical operation, aged 53.

Robert R. Jetter, Union, S. C.; Medical College of South Carolina, Charleston, 1890; health officer of Union; died, May 7, aged 55.

Warner Hugh Mausey, Findlay, Ill.; Louisville (Ky.) Medical College, 1898; died, May 17, from cerebral hemorrhage, aged 54.

William F. Ellard, Water Valley, Miss.; Louisville (Ky.) Medical College, 1882; died, May 11, from cerebral hemorrhage, aged 68.

Alfred Greeley Ladd, Warm Springs, Mont.; Bowdoin Medical School, Brunswick and Portland, Maine, 1878; died, about May 17.

David E. Lusby, Owen, Ky. (license, Kentucky, years of practice, 1893); a veteran of the Civil War; died, April 26, aged 76.

James P. Dice, Xenia, Ohio; Eclectic Medical Institute, Cincinnati, 1869; died, May 18, from pneumonia, aged 79.

John N. Lovell, Bradford, Ark.; Memphis (Tenn.) Hospital Medical College, 1895; died, May 13, from appendicitis.

Gideon von Bachelle, Chicago; Rush Medical College, 1867; a veteran of the Civil War; died, May 23, aged 75.

Clinton Stuart Kerr, Emlenton, Pa.; Cincinnati College of Medicine and Surgery, 1876; died, May 20, aged 72.

Thomas Harvey Williams, Germantown, Tenn.; Jefferson Medical College, 1872; died, May 18, aged 72.

Gustavus C. Beckh, San Francisco; University of Wurzburg, Germany, 1881; died, May 21, aged 64.

Abraham Mandelbaum, Brooklyn; Maryland Medical College, Baltimore, 1901; died, May 24, aged 50.

Wallace L. Sappington, Maplewood, Mo.; St. Louis Medical College 1882; died, May 16, aged 59.

Jesse P. Rex, Richmond, Va.; Medical College of Virginia, Richmond, 1903; died, May 21, aged 42.

James Saunders, Glenellyn, Ill.; Bennett Medical College, Chicago, 1881; died, May 19, aged 75.

Mahlon Lindley, Urbana, Ill. (license, Illinois years of practice, 1878); died, May 14, aged 87.

Daniel William Ramer, Springfield, Tenn.; University of Nashville, Tenn., 1874; died, May 3.

Samuel S. Ruby, Union City, Ind. (license, Indiana, 1897); died, May 16, aged 66.

● Indicates "Fellow" of the American Medical Association.

The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE JOURNAL'S BUREAU OF INVESTIGATION, OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER GENERAL MATERIAL OF AN INFORMATIVE NATURE

REOLO

Several inquiries have been received regarding "Reolo" of the "Dr. A. L. Reusing Laboratories," Akron, Ohio. The advertising matter of Reolo bears the earmarks of another attempt to capitalize what certain "patent medicine" concerns have called the "Biochemic Treatment." This "treatment" is based on the theory—which has no scientific basis—that all disease is the result of a variation in the inorganic salt-content of the cells. Starting with this hypothesis, it is argued that all that is necessary for the treatment of any disease is to make good the salt deficiency of the cells. This is done by administering tablets alleged to contain certain salts in infinitesimal amounts. Examination of the medicaments used by the exponents of this theory usually discloses nothing more potent in the tablets than milk sugar or something equally innocuous.

Some of the claims made in the Reolo advertising are:

"All diseases that are curable are cured in a natural way through the circulation of the blood which is carried by the blood vessels and transudes through the walls of the veins and capillaries into the surrounding tissues. When the blood contains the proper amount of Cell-Salts and Red Blood Cells the whole body glows with health and vitality — the eyes sparkle — sleep is refreshing — and you are free from aches and pains."

"The treatment of disease with Cell-Salt is so rational and in such perfect accord with the well-known principles of Nature's laws, that it is only necessary to explain its basic principle and any intelligent person will instantly admit that it is the only natural, scientific treatment for disease."

"The world's most eminent physicians have conducted exhaustive laboratory tests in an endeavor to obtain a perfect combination of these Cell-Salts that will be promptly assimilated by the cells of the body."

"Dr. A. L. Reusing has finally succeeded in combining by electrical treatment the phosphates of calcium, sodium and iron with the phosphates of potassium and magnesium, and has obtained a perfect combination of these revitalizing Cell-Salts that he has named 'Reolo,' which produces a very rapid increase in the number of red blood cells and a greater percentage of hemoglobin in the blood."

Reolo was submitted to the A. M. A. Chemical Laboratory for examination. Here is what the chemists report:

"The specimens of Reolo examined consisted of greyish-brown tablets having a sweet, chocolate-like and faintly bitter taste. Iodids, bromids, emodin-bearing (laxative) drugs, arsenic, salicylates and sulphates were absent. Alkaloids were absent or present, if at all, only in traces. Very small quantities of a phosphate and traces of magnesium were present. Large amounts of calcium carbonate (chalk) and sucrose (cane sugar) were present; also traces of an iron compound. The substance imparting the bitter taste was not identified. The tablets do not appear to be medicated in the usually accepted sense."

From this it would appear that "Reolo, The Health Renewer," is essentially a mixture of cane sugar and chalk!

"ASPIRIN BAYER" AND THE STERLING PRODUCTS COMPANY

A correspondent, who asks that his name be not published, writes:

"Your editorial on 'Aspirin or Acetylsalicylic Acid—An Important Court Decision' is timely. Too often, I fear, physicians forget 'what's in a name.' I have been told that the Sterling Products Co., the present owners of the Aspirin-Bayer rights, are manufacturers of other 'patent medicines.' Are they interested in the Winthrop Chemical Company, which firm seems to be using the much vaunted 'Bayer Cross' on the labels of the products formerly imported from Germany by 'The Bayer Company'? If you answer this in THE JOURNAL, kindly omit my name."

The recent history of Bayer & Co., is somewhat as follows: Shortly after the United States entered the war, the Alien Property Custodian took over the property of Bayer & Co. (Inc.) and its subsidiary, the Synthetic Patents Co. In his report to congress the Custodian said:

"The stock of Bayer & Co. (Inc.) and of Synthetic Patents Co. was sold by me at public auction, the successful bidder being the Sterling Products Co., a West Virginia corporation dealing in proprietary medicines. This company had previously agreed to dispose of the dye plant and patents, in case it secured the property, to Grasselli Chemical Co., one of the largest makers of heavy chemicals in the country. The price paid was $5,310,000, plus back taxes and other obligations of many hundred thousands more."

After the Sterling Products Company had acquired the pharmaceutical end of the business the Winthrop Chemical Co. was incorporated in the state of New York. This concern seemingly secured control of all the Bayer pharmaceutical specialties except "Aspirin." The Bayer Co., it was announced had been merged with the Sterling Products Co., and "Aspirin-Bayer" added to the latter firm's list of "patent medicines": Cascarets, Danderine, Pape's Diapepsin, California Syrup of Figs, Neuralgine and Dodson's Livertone. The business is apparently a paying one financially as witness the following excerpt from a recent announcement in a drug journal:

"Stockholders of the Sterling Products, Inc., of Wheeling, manufacturers of Neuralgine, Cascarets, Bayer's Aspirin, and other well-known products, and the largest proprietary medicine organization in the world, at their annual meeting received a report of Manager W. E. Weiss, which showed that the company did a $10,000,000 business in 1920. The total profits were $2,100,000, while a total of $1,080,000 was paid out in dividends."

Just what relationship exists between the Winthrop Chemical Co., and the Sterling Products Co., we do not know. As one correspondent points out, the "Bayer cross" is used on the label of the Winthrop products.

The advertising campaign of "Aspirin, Bayer" since it entered the "patent medicine" field has been typical of that field. By half-truths and inferential falsehoods the public has been led to believe that the only genuine aspirin on the market is that put out under the Bayer name. The facts are, of course, that the aspirin of any reputable firm is just as good as the aspirin put out by the makers of Livertone, Danderine and Cascarets.

There is one point, however, that is of vital importance to the medical profession: The decision recently rendered in the United States District Court of Southern New York makes it obligatory for druggists, when filling a physician's prescription calling for "aspirin," to dispense the Bayer product. When the public buys aspirin on its own responsibility—without specifying any particular brand—the druggist may give the purchaser any make of acetylsalicylic acid he sees fit. To repeat what was said in THE JOURNAL's comment on this decision: "Unless a physician wishes to cater to the concern owning the Bayer rights and to aid in perpetuating what was a monopoly for seventeen years, he should be careful to prescribe the drug under the term "acetylsalicylic acid.' The court now places the responsibility directly on the medical profession. Avoid 'aspirin'—write 'acetylsalicylic acid.'"

Correspondence

ADMINISTRATION OF ARSPHENAMIN IN THE TROPICS

To the Editor:—In THE JOURNAL, Jan. 15, 1921, Dr. J. F. Schamberg, Philadelphia, described a simplified technic of neo-arsphenamin administration by which the drug is dissolved in 5 c.c. of water in its own ampule. Ravaut (in Castellani-Chalmers: Manual of Tropical Medicine, Ed. 3, p. 1560) was probably the first to advocate the use of concentrated solutions of the organic arsenicals. In the treatment of frambesia he gave doses up to 0.9 gm. of neo-arsphenamin dissolved in 2 c.c. of water. Throughout South America, Ravaut's method has been for years the practically universal mode of administration. A small 2 c.c. syringe is used instead of the larger and less common one of 5 c.c. The 2 c.c. Lüer syringe with metal sterilizer case is of great

convenience. It is conveniently heated with a small piece of cotton saturated with alcohol, or a couple of hexamethylenamin tablets.

In difficultly accessible regions where freshly distilled water is unavailable, the physician simply takes water from a running stream (well or cistern water is less preferable, as it usually contains more minerals in solution and its freshness is not certain), which he filters through cotton, boils thoroughly, and cools by setting the container in a vessel of cool water. The syringe may be sterilized in the same water and withdrawn by a pair of forceps, the jaws of which have been sterilized by dipping in alcohol. Two c.c. of the sterilized water is drawn into the syringe and injected into the ampule containing the neo-arsphenamin, the ampule being opened only when everything is ready for making the solution. The water is withdrawn and reinjected, and the ampule shaken until the drug is completely dissolved. The injection is given in the vein *immediately*, slowly, and with vigilance to prevent any of the highly concentrated liquid being injected into the tissues outside the vein. In case such an accident occurs, the needle is instantly withdrawn and the injection continued at another site. A syringeful of sterile water is then injected into the area of extravasated drug to stop the pain.

I have seen hundreds of injections given in this way, and the results have been in all respects as satisfactory as with the more elaborate and refined methods in vogue elsewhere. This reduces the administration of neo-arsphenamin to the simplicity of any intravenous injection, and places it in the hands of the most modestly equipped practitioner. I have witnessed its administration by the side of a jungle trail, on a river raft, on the counter of a country store and in the huts of the peons. In tropical areas of South America, neo-arsphenamin has an enormous application in the treatment of malaria, frambesia, trypanosomiasis, tropical splenomegaly, filariasis, relapsing fever, variola, syphilis and a number of tropical dermatoses, and is considered a veritable panacea by the native population. It is even sold in grocery stores, aboard river steamers and by pedlers, and in the many isolated regions where there are no physicians it is administered by laymen. Even in the hospitals the nurses give it the same as any other hypodermic medication. When one sees the frequent disregard of previous preparation of the patient, such as giving a laxative before the injection, abstinence from eating, and examination of the heart and urine, and observes the few reactions among the hundreds of injections, one almost comes to the conclusion that neo-arsphenamin is a harmless drug. Perhaps it is that, like chloroform, it is better tolerated in the tropics. Arsphenamin is apparently almost unknown.

As the French Novarsenobillon retails at $1.50 an ampule of 0.9 gm., it is the preparation most used. (It is customary for the patient to buy the drug and take it to his physician to be administered, the fee for which is usually $2.) However, the natives still have great faith in the German salvarsan, and will often pay exorbitant prices for it. In our industrial medical service we administer about 400 injections each month, and have used all brands of neo-arsphenamin, but at present we are limiting ourselves to the American products, as we find them superior in solubility, of lesser toxicity, and productive of excellent clinical results.

M. F. NÚÑEZ, M.D., Barranquilla, Colombia,
Medical director, South America.
Colombia Syndicate Hospital.

Syphilis of Heart.—It is very difficult for a student of clinical medicine to understand why pathologists and clinicians have both so long ignored the subject of cardiac syphilis, so very obvious and important does the condition become once it is recognized.—Harlow Brooks, *Am. J. Syphilis* **5**:220, 1921.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

AMMONIA IN THE BLOOD AND ALKALI RESERVE

To the Editor:—In Stitt's Diagnosis and Treatment of Tropical Diseases, chapter on yellow fever, page 231, I read: "The fatal issue is connected with the loss of the urea formation function. The patient dies of ammoniemia rather than from uremia." Later (page 234) the author says: "There would seem to be an acidosis in yellow fever." Are these two statements compatible? We know that acidosis occurs rather frequently in infectious diseases and in some types of nephritis, but it occurs to me that in cases of increased ammonia in the blood, the alkaline reserve is not likely to be exhausted or diminished. Any information you can give me on the subject will be received with thanks.

F. P. MIRANDA, M.D., New Orleans.

ANSWER.—The loss of the urea-forming function is not incompatible with acidosis. The term "acidosis" was originally introduced into the medical literature by Naunyn to designate any anomaly of the metabolism characterized by an increased production or liberation of acid. The term "diabetic acidosis" was applied by the same writer to that anomaly of the metabolism characterized by an overproduction or excessive liberation of acetoacetic and beta-hydroxybutyric acids. Acidosis in this sense is not necessarily attended by any diminution of the alkali reserve of the body. Although it leads to an abstraction of alkali from the body, the reserve may be maintained by a sufficient compensatory intake of alkali. In other words, it is perfectly correct to use the term acidosis in conditions in which the alkali reserve is not diminished. The definition of acidosis as a diminution of the alkali reserve was originated by L. J. Henderson, and applies to the condition of alkali deficit to which Naunyn applied the term hypalkalität. Much misunderstanding has arisen from this confusion of terms. Although there can be no mistake in speaking of acidosis when there is a demonstrable alkali deficit, there may be acidosis without any demonstrable alkali deficit.

In regard to the question of whether there could be an increase of ammonia in the blood and at the same time a diminution of the alkali reserve, it may be said that these two things are not incompatible because the ammonia might exist in the form of ammonium salts of acids, as it commonly does in the diabetic type of acidosis. An excess of free ammonia, on the other hand, would in all probability be incompatible with a condition of alkali deficit. In other words, if the writer means that in yellow fever there occurs at one and the same time an excess of *free* ammonia in the blood and an acidosis, the statements would appear to be confusing.

EFFECT OF LIGATION OF VAS DEFERENS ON TESTES

To the Editor:—Kindly inform me as to whether the tying off of the vas deferens would cause an atrophy of the testes and a sexual impotence, or whether it would just cause sterility and nothing more.

LEO HEULER, M.D., Fellows, Calif.

ANSWER.—Until recently it has been generally believed that complete occlusion of the vas results in the ultimate disappearance of the spermatic tissue and an increase or hypertrophy of the interstitial cells. However, research by Steinach and Kuntz has shown that if degeneration of the spermatogenic structures in the testes takes place following vasectomy, the condition is not permanent. Wheelon recently reported the results of his study of two testes nine months following a unilateral vasectomy. The testis of the unoperated vas was firm and normal in appearance, whereas the testis of the occluded vas was smaller than its mate and easily compressible. Microscopic examination of the occluded testes disclosed that the seminiferous tubules, although showing the results of destructive processes, contained much spermatic tissue. The interstitial tissue seemed to be somewhat increased in these glands; in the unobstructed glands it was normal in amount. Sterility and not impotence results from complete occlusion of the vasa deferentia.

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Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

ALABAMA: Montgomery, July 12. Chairman, Dr. Samuel W. Welch, Montgomery.

ARIZONA: Phoenix, July 5-6. Sec., Dr. Ancil Martin, 207 Goodrich Bldg., Phoenix.

CALIFORNIA: San Francisco, June 27-30. Sec., Dr. Charles B. Pinkham, 727 Butler Bldg., San Francisco.

COLORADO: Denver, July 5. Sec., Dr. David A. Strickler, 612 Empire Bldg., Denver.

CONNECTICUT: Hartford, July 12-13. Sec., Regular Board, Dr. Robert L. Rowley, 79 Elm St., Hartford.

CONNECTICUT: New Haven, July 12. Sec., Eclectic Board, Dr. James E. Hair, 720 State St., Bridgeport. Sec., Homeo. Bd., Dr. Edwin C. M. Hall, 82 Grand Ave., New Haven.

DELAWARE: Wilmington, June 21-23. Sec., Dr. P. S. Downs, Dover.

FLORIDA: Jacksonville, June 13-14. Sec., Reg. Bd., Dr. William M. Rowlett, Citizens Bank Bldg., Tampa.

ILLINOIS: Chicago, June 20-23. Supt. of Registration, Mr. F. C. Dodds, Springfield.

INDIANA: Indianapolis, July 12-14. Sec., Dr. Wm. T. Gott, 84 State House, Indianapolis.

IOWA: Iowa City, June 9-11. Sec., Dr. Guilford H. Sumner, Capitol Bldg., Des Moines.

KANSAS: Kansas City, June 21-22. Sec., Dr. H. A. Dykes, Lebanon.

LOUISIANA: New Orleans, June 9-11. Sec.Treas., Reg. Bd., Dr. Roy B. Harrison, 1531 Canal St., New Orleans.

MAINE: Augusta, July 5-6. Sec., Dr. Frank W. Searle, 140 Pine St., Portland.

MARYLAND: Baltimore, July 19. Sec., Regular Board, Dr. J. McP. Scott, 141 W. Washington St., Hagerstown.

MASSACHUSETTS: Boston, July 12-14. Sec., Dr. Walter P. Bowers, Room 144, State House, Boston.

MICHIGAN: Ann Arbor, June 14. Sec., Dr. B. D. Harison, 504 Washington Arcade, Detroit.

MISSISSIPPI: Jackson, June 21-22. Sec., Dr. W. S. Leathers, University.

MISSOURI: St. Louis, June 13-15. Act. Sec., M. E. Holliway, State House, Jefferson City.

NATIONAL BOARD OF MEDICAL EXAMINERS, Boston, June 14-21. Sec., Dr. J. S. Rodman, 1310 Medical Arts Bldg., Philadelphia.

NEW JERSEY: Trenton, June 21-22. Sec., Dr. Alexander MacAlister, State House, Trenton.

NORTH CAROLINA: Raleigh, June 21. Sec., Dr. Kemp P. B. Bonner, Morehead City.

NORTH DAKOTA: Grand Forks, July 5-8. Sec., Dr. G. M. Williamson, Grand Forks.

OREGON: Portland, July 5-7. Sec., Dr. Urling C. Coe, 1208 Stevens Bldg., Portland.

PENNSYLVANIA: Philadelphia and Pittsburgh, July 5-9. Sec., Mr. Thomas E. Finnegan, State Capitol, Harrisburg.

RHODE ISLAND: Providence, July 7-8. Dr. Byron U. Richards, State House, Providence.

SOUTH CAROLINA: Columbia, June 28. Sec., Dr. A. Earle Boozer, 1806 Hampton St., Columbia.

SOUTH DAKOTA: Deadwood, July 19-20. Director of Medical Licensure, Dr. H. R. Kenaston, Bonesteel.

TENNESSEE: Memphis, Nashville and Knoxville, June 10-11. Sec., Alfred B. De Loach, 1001 Exchange Bldg., Memphis.

TEXAS: Austin, June 21-23. Sec., Dr. Thomas J. Crowe, 918-919 Dallas Co. Bank Bldg., Dallas.

VERMONT: Burlington, June 28-30. Sec., Dr. W. Scott Nay, Underhill.

VIRGINIA: Richmond, June 14-17. Sec., Dr. J. W. Preston, 511 MacBain Bldg., Roanoke.

WASHINGTON: Olympia, July 12. Commissioner of Licensure, Mr. Wm. Melville, Olympia.

WEST VIRGINIA: Charleston, July 12. State Commissioner of Health, Dr. L. T. Vinson, Masonic Bldg., Charleston.

WISCONSIN: Milwaukee, June 28-30. Sec., Dr. J. M. Dodd, 220 E. Second St., Ashland.

Missouri January Examination

Mr. M. E. Holliway, acting secretary, Missouri State Board of Health, reports the written examination held at St. Louis, Jan. 18-20, 1921. The examination covered 14 subjects and included 100 questions. An average of 75 per cent. was required to pass. Of the 26 candidates examined, 24 passed and 2 failed. Eleven candidates were licensed by reciprocity. The following colleges were represented:

College	PASSED	Year Grad.	Per Cent.
Northwestern University Medical School		(1890)	84.5
State University of Iowa College of Medicine		(1920)	85.2
St. Louis College of Physicians and Surgeons		(1917) (1918) 75.9, 82.4	79.2
St. Louis University School of Medicine		(1904) (1921) 83.2, 84, 84.1, 84.1, 84.8, 86.1, 86.5, 86.5, 86.6, 89	79.9, (1905) 83.7,
Washington University Medical Department		(1918) (1920) 82.9, 86.1, 86.7, 87.2	90.2
Jefferson Medical College of Philadelphia		(1920)	86.1
Meharry Medical College		(1913)	80.7
	FAILED		
St. Louis College of Physicians and Surgeons		(1917) (1918) 56.7	53.3,
	LICENSED BY RECIPROCITY		
College		Year Grad.	Reciprocity with
Chicago College of Medicine and Surgery		(1912)	Kansas
Northwestern University Medical School		(1909)	Illinois
Rush Medical College		(1920)	Illinois
Johns Hopkins University Medical Dept.		(1909) (1912)	Maryland
University Medical College of Kansas City		(1913)	Kansas
Washington University Medical Department		(1919)	Utah
University of Nebraska College of Medicine		(1920)	Nebraska
Meharry Medical College		(1915)	Mississippi
University of Oklahoma		(1918)	Oklahoma
Eclectic Medical College, Cincinnati		(1917)	Ohio

Michigan January Examination

Dr. Beverly D. Harison, secretary, Michigan State Board of Registration in Medicine, reports the written examination held at Detroit, Jan. 12-14, 1921. The examination covered 14 subjects and included 100 questions. An average of 75 per cent. was required to pass. Of the 9 candidates examined, 7 passed and 2 failed. The following colleges were represented:

College	PASSED	Year Grad.	Per Cent.
Georgetown University School of Medicine		(1918)	85.1
Chicago College of Medicine and Surgery		(1915) (1916) 79, (1917) 75, 75.5	75, 75.2,
Meharry Medical College		(1915)	75
	FAILED		
Loyola University		(1918) 72.3, (1919)	73.8

West Virginia January Examination

Dr. R. T. Davis, health commissioner, West Virginia Public Health Council, reports the oral and written examination held at Charleston, Jan. 11, 1921. The examination covered 11 subjects and included 132 questions. An average of 80 per cent. was required to pass. Of the 9 candidates examined, 7 passed and 2 failed. Four candidates were licensed by reciprocity. The following colleges were represented:

College	PASSED	Year Grad.	Per Cent.
Johns Hopkins University		(1918)	90
University of Maryland		(1920)	87, 88
Jefferson Medical College		(1920)	94
Temple University Department of Medicine		(1919)	93
University of Nashville Medical Department		(1903)	80
University of Tennessee College of Medicine		(1918)	87
	FAILED		
Southern College of Medicine and Surgery		(1914)*	69
Chicago Medical School		(1920)	62
College	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Dearborn Medical College		(1905)	Illinois
Marion-Sims College of Medicine		(1897)	Illinois
University of Pennsylvania		(1919)	Ohio
Medical College of Virginia		(1915)	Virginia

*Graduation not verified.

Vermont February Examination

Dr. W. Scott Nay, secretary, Vermont State Board of Medical Registration, reports that two candidates were licensed by endorsement of their credentials at the meeting held at Burlington, Feb. 8-10, 1921. The following colleges were represented:

College	ENDORSEMENT OF CREDENTIALS	Year Grad.	Endorsement with
Harvard Medical School		(1882)	Mass.
Albany Medical College		(1898)	New York

Wyoming February Examination

Dr. J. D. Shingle, secretary, Wyoming State Board of Medical Examiners, reports the written examination held at Cheyenne, Feb. 7-9, 1921. The examination covered 10 subjects and included 100 questions. An average of 75 per cent. was required to pass. Three candidates were examined, all of whom passed. Four candidates were licensed by reciprocity. The following colleges were represented:

College	PASSED	Year Grad.	Per Cent.
University of Oregon		(1917)	89.4
Osteopaths			77.1, 77.3
College	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Bennett Coll. of Eclectic Medicine and Surgery		(1897)	Illinois
Kentucky University Medical Department		(1904)	Missouri
Albany Medical College		(1906)	New Hamp.
University of Minnesota Medical School		(1920)	Illinois

Book Notices

CLINICAL OPHTHALMOLOGY FOR THE GENERAL PRACTITIONER. By A. Maitland Ramsay, M.D., Fellow of Royal Faculty of Physicians and Surgeons, Glasgow. With a Foreword by Sir James Mackenzie, M.D., F.R.S. Cloth. Price, $16.50. Pp. 500, with illustrations. New York: Oxford University Press, 1920.

The purpose and scope of this work are indicated in the first few lines: "The author spent ten years in general practice before he specialized in eye diseases, and that experience has greatly influenced his outlook on ophthalmology. He has written this book, which is the outcome of his personal clinical experience, for the busy general practitioner, and more especially for the country doctor. His aim has been to indicate, as far as possible, the cases which the general practitioner can treat safely on his own responsibility, and those in which it is desirable to obtain a consultation with an expert. He has tried to bring the treatment of diseases of the eye into line with every-day practice, and to establish the intimate connection between the eye and other parts of the body." He also says that the book is not meant to take the place of a systematic treatise, but is an attempt to present the subject of ophthalmology as the general practitioner meets it in his daily practice. One who is familiar with the beautiful textbook on injuries of the eye published by Dr. Ramsay in 1907 is prepared to find in this volume a well arranged and beautifully illustrated volume. Much space is naturally devoted to the consideration of the external diseases of the eye as encountered in general, and especially country, practice. There are, however, excellent chapters on the functional examination of the eye, and the treatment of superficial injuries, on the workmen's compensation act, and the prescribing of spectacles. A chapter on the clinical significance of failing sight is particularly well done, as is also the chapter on the use of the ophthalmoscope in general medicine. Sixty pages are devoted to therapeutic notes and formulas. Many of the collyria described are seldom used in this country, but the detailed description of the drugs used in ophthalmology, their physical and chemical properties, and the proper method of preparing the solutions is excellent. One wishes that every practitioner might have the knowledge of the eye contained in this volume, but it is questionable whether any general medical man should assume the responsibility of an injury or disease of the eye which may lead to blindness. One might also question the desirability of a general practitioner's doing refraction work; but there may be conditions under which it is necessary, and if the directions given were carefully followed, many patients would receive much better help than they are getting from refracting opticians or optometrists. According to American standards, however, Dr. Ramsay's ideas in regard to the correction of error of refractions are rather archaic. The descriptions of pathologic conditions are in the main excellent, and the directions for treatment are extremely practical. One dislikes to read of rheumatic and idiopathic iritis in a book published in 1920, but Dr. Ramsay is not the only one who has not accepted the Chicago view of the etiology of iritis. The presswork is excellent, and the illustrations, especially those in color, are exceptionally good.

ANNALS OF ROENTGENOLOGY. A Series of Monographic Atlases. Edited by James T. Case, M.D., President of the American Roentgen-Ray Society. Volume I. Mastoids Roentgenologically Considered. By Frederick M. Law, M.D., Roentgenologist, Manhattan Eye, Ear, Nose and Throat Hospital, New York. Cloth. Price, $16 net. Pp. 39, with Forty-Two Roentgen Ray Studies on 21 Photographic Plates and 11 illustrations. New York: Paul B. Hoeber, 1920.

This work constitutes the first published volume of a series of monographic atlases edited by James T. Case of Battle Creek, and written by a group of specialists in the various fields of roentgenology. It may be said that if the present volume is indicative of the scope and character of the remaining seven volumes of the series, a most valuable work and reference guide has been presented to the profession. Dr. Law, thoroughly qualified as an authority in the field of mastoid roentgenology, has supplied in this attractive book an estimable asset to the working armamentarium of both roentgenologist and otologist. The text consists of six brief chapters on anatomy, pathology, plate interpretation and technic, and is followed by twenty-one double photographic plates which are contact prints from a series of master roentgenograms. Each plate is accompanied by a short clinical history of the case, a diagnostic guide to the plate examination, and the findings at operation. The illustrations do not cover every case of mastoiditis which may present itself, but show the various conditions which occur within the bone. Complications or combinations of the typical conditions are left to the judgment of the examiner, as the aim of the book is to be a guide rather than an encyclopedia.

CLINICAL LECTURES ON ENLARGEMENT OF THE PROSTATE WITH A DESCRIPTION OF THE AUTHOR'S OPERATION OF TOTAL ENUCLEATION OF THE ORGAN. By Sir Peter J. Freyer, K.C.B., M.D., M.Ch., Surgeon to St. Peter's Hospital, London. Fifth edition. Cloth. Price, $3.25. Pp. 174, with 56 illustrations. New York: William Wood and Company, 1920.

These lectures cover the nature of the enlargement of the prostate, and the pathology, symptoms and diagnosis. The general treatment is discussed, together with the complications and the difficulties that are encountered. The operation of total enucleation of the enlarged prostate in its capsule, the review of numerous cases, and illustrations of prostates that have been removed, with the operation involving the partial or total removal of the prostatic urethra, are shown and discussed. What the author has to state about the after-treatment is worthy of consideration by any one who does operative work. The scope and the limits of the various operations which he describes are authoritative. Naturally, the operation in two stages, as well as the cases that are complicated with vesicle calculus, are reviewed. In this edition a new chapter takes up the subject of cancer of the prostate. Freyer's views on this subject agree with the vast majority of statistical facts that are known at present. The number of cases of enlargement of the prostate for which he was consulted in private practice were 1,595, of which 1,374 cases were diagnosed as benign enlargement of advanced age, and 221 as cases of malignant disease, which gives a percentage of 13.8. He states that a prostate attacked by malignant disease previous to its undergoing adenomatous enlargement is rarely, if ever, capable of enucleation suprapubically by his method of dealing with hypertrophy of the prostate, or of being effectually removed by any other method. He is furthermore inclined to believe that radiotherapy is useless in cancer of the prostate, a statement that is borne out by the results, or rather lack of results, in patients from his own practice that have been submitted to this treatment, as in those of others that have come under his notice.

PULMONARY TUBERCULOSIS, A HANDBOOK FOR STUDENTS AND PRACTITIONERS. By Edward O. Otis, A.B., M.D., Professor of Pulmonary Diseases and Climatology, Tufts College Medical School, Boston. Second edition. Cloth. Price, $3.50. Pp. 212, with 21 illustrations. Boston: W. M. Leonard, 1920.

The prospectus states that this is a "medical book for lay readers." The book lives up to the statement by being readable and easy to understand; but the medical man who assumes that he has nothing to learn from it and casts it aside is missing something unless he knows all about tuberculosis. The book may well be recommended to general practitioners, students, nurses and even patients. With regard to the tuberculin test the author says: "It is to be remembered that a reaction only indicates that there is a tuberculous focus *somewhere* [italics ours] in the body." This is offered to the attention of those practitioners who are still making diagnoses on the Moro or the von Pirquet reaction. The book's value is not impaired by containing such things as Lawrason Brown's Aphorisms, Diagnostic Standards of the Framingham Demonstration, and Stoll's Essential Points. Some seekers after light may be perplexed by the brevity of Dr. Otis' chapter on pneumothorax treatment as well as by his views on the subject. Regarding tuberculosis in childhood, the book contains an interesting chapter which, while mentioning various diagnostic factors of possible value, also gives us the essentials of diagnosis of this phase of tuberculosis. Dr. Otis must have much sympathy for the lovelorn tuberculous. He advances more rules for the government of tuberculous married persons than reasons why they should not marry. We wish he had included in his chapter

the aphorisms: "The tuberculous girl should not marry"; "The tuberculous wife should not conceive," and "The pregnant tuberculous woman should not carry through." The chapter on climate can be recommended to the restless "chasers" who ramble hither and thither, seeking to get well on exercise and atmosphere.

STUDIEN ÜBER DARMTRÄGHEIT (STUHLVERSTOPFUNG) IHRE FOLGEN UND IHRE BEHANDLUNG. Von Dr. Franz Xaver Mayr. Second edition. Pp. 266. Berlin: S. Karger, 1920.

It is interesting to find that so great a number of ailments of the gastro-intestinal tract as gastritis, peptic ulcer, volvulus of the large and small bowel, hernia, hemorrhoids, intestinal carcinoma and polyps, gallstones, cholecystitis and pancreatitis can be traced more or less directly to insufficiency either of the large bowel or, with more pernicious results, of the small bowel. That such is the case, Dr. Franz Xaver Mayr tries to prove. He presents his case in an interesting and conclusive manner, if the premises are accepted in their entirety. Devoid of any unnecessary and complicated explanations, the discussion of the anatomy and physiology of the large and small bowel offer as simple and complete a statement as one can desire. The action of the bowel is considered as the sum of the actions of the various segments, each of which has a stimulating or inhibiting effect on the segment just ahead of it. The reflex action of any segment is the product of the stimulation and irritability of that segment. The author claims that peristalsis during normal digestion with constant diet is practically constant from day to day. He lays great emphasis on disturbances of the small bowel as a causative factor of the disturbance of motility of the stomach. Percussion of the abdomen in his opinion will reveal whether the pathologic condition is in the small bowel or large bowel. As curative measures, he recommends a diet regulated to reduce carbohydrate fermentation and protein putrefaction, massage, hydrotherapy and electricity. It is highly improbable that the reader will agree with the author in all the particulars. The book, however, is interesting and readable, and has a complete bibliography.

DIE GIFTE IN DER WELTGESCHICHTE. Toxikologische, Allgemeinverständliche Untersuchungen der Historischen Quellen. Von Prof. Dr. L. Lewin. Paper. Price, 56 marks. Pp. 596. Berlin: Julius Springer, 1920.

Dr. Lewin, in typical German encyclopedic manner, has collected all of the references to death by poisoning, whether homicidal or suicidal, which appear in the history of the world. Not only has he made record of the case but he has analyzed it from the standpoint of the poison administered, the method of administration, the symptoms, and the attempts at prevention. He begins with the times of ancient magic and legend, and then takes up resemblances of poisoning to illness, the preparation of laws regulating poisons, cases of poisoning by physicians, unusual forms of poisoning, suicide, the use of arsenic, famous persons in the history of poisoning, women as poisoners, priests as poisoners, and poisons in the history of warfare. It is impossible in the space of a brief review to analyze the work in detail. It is a praiseworthy and important contribution to the subject.

THE RADIOGRAPHY OF THE CHEST. Vol. 1. Pulmonary Tuberculosis. By Walker Overend, M.A., M.D., B.Sc., Physician to the Prince of Wales' Hospital, London. Cloth. Price, $5. Pp. 119, with 99 illustrations. St. Louis: C. V. Mosby Company, 1920.

This book, bearing the American stamp, although printed in England, covers the subject of roentgenography of the chest as applied particularly to tuberculosis of the lungs, pleurae and mediastinum. The publication contains nine chapters dealing with roentgenologic findings of the normal chest, classification of tuberculosis, roentgenographic findings of the various types of pulmonary tuberculosis with complications, and a final summary of the physical findings as compared with roentgenographic markings. It contains ninety clear reproductions of radiograms and nine diagrams. The book is decidedly English in tone. Under each heading there is a description of the roentgenographic findings typical of the group, followed by case reports including clinical, roentgenologic and, where possible, postmortem findings as a control. The case reports are sufficiently detailed to make the study of the corresponding roentgenograms of decided value, and they support the contention of the author that a roentgen-ray examination of the chest is an essential feature in the proper diagnosis of pulmonary lesions. By careful descriptions, the types of roentgenographic findings corresponding to the various types of tuberculosis are made clear. The author goes farther and points out that the interpretation of clinical findings may be more accurately made by the additional study of the roentgen-ray findings. On the whole, the book is well worth reading, especially for those who are interested in clinical medicine and have not made much use of roentgenography as an aid in the diagnosis of tuberculosis. The careful portrayal of roentgenographic findings in individual cases constitutes the chief value of the work.

GENERAL PATHOLOGY. By Dr. Ernst Ziegler, Professor of Pathological Anatomy in the University of Freiburg in Breisgau. From the Eleventh Revised German Edition (Gustav Fisher, Jena, 1905). Revised by Douglas Symmers, M.D., Director of Laboratories, Bellevue and Allied Hospitals. Cloth. Price, $7. Pp. 594, with 604 illustrations. New York: William Wood and Company, 1921.

The chapter on immunity remains practically as if written, say, in 1908. In fact, no reference is made to any publications after 1909. The section on streptococci and pneumococci is equally archaic, and no mention is made of the division of streptococci into hemolytic and nonhemolytic or of pneumococci into types. The existence of different kinds of dysentery bacilli is not indicated. The influenza bacillus is said to be "regarded as the cause of influenza." Filtrable viruses and diseases usually regarded as caused by such viruses, as epidemic poliomyelitis and foot-and-mouth disease, are not mentioned. The rôle of the louse in typhus fever, vaccination against smallpox, allergy and the Schick test also appear to escape mention. The statements about medullary giant cell sarcoma on page 328 are confusing and inadequate. These examples of the patchiness and incompleteness of many important chapters will indicate to teachers of pathology that it would be unwise and unfair to put this book in the hands of medical students as a guide in the study of general pathology at this time. When one considers the growth of general pathology during the last fifteen years, the difficulty of revising successfully in 1920 the translation of a textbook, last revised in 1905, on this subject will impress one strongly. In this particular case, in spite of the best will in the world to accept at full value any earnest effort to produce a useful book on general pathology, and in spite of the great value of many of the chapters, particularly those dealing with general pathologic anatomy, in Ziegler's old and well known work, it is utterly impossible to endorse the present issue as at all satisfactory either for student or for practitioner.

RETRAINING CANADA'S DISABLED SOLDIERS. By Walter E. Segsworth, M. E. Cloth. Pp. 191, with illustrations. Ottawa: J. de Labroquerie Taché, 1920.

Mr. Segsworth, who has been director of industrial retraining of Canada's disabled soldiers since July, 1917, describes, after a brief history of the painful process of evolution and adaptation through which the Canadian scheme of retraining and vocational replacement passed, the present highly efficient program employed in that country, including chapters devoted to ward occupations; curative workshops; vocational selection service and interviewing; industrial retraining; industrial surveys; the special duties and opportunities of the vocational medical officer and the problems in reconstruction therapy encountered by the internist; care and retraining of the blind; statistics bearing both on the classification of disabilities as to types and result, and on relation of earning capacity before the disability was sustained and before and after retraining and reconstruction of the disabled; costs of vocational training; summary and tabulation of the end-results so far attained in physical reconstruction; functional retraining; vocational selection, and placement. The Canadian method of supervision of industrial retraining is described. This might well be valuable to other governments as a framework for the organization of a comprehensive scheme for the physical reconstruction and vocational retraining of the ever increasing number of handicapped from the industrial armies of the world.

Medicolegal

Sufficient Evidence Against Roentgenologist

(Hayes v. Lufkin (Minn.), 179 N. W. R. 1007)

The Supreme Court of Minnesota affirms an order denying a motion that the defendant made for a judgment in his favor, notwithstanding that the verdict of the jury was against him; or for a new trial. The verdict gave the plaintiff $6,200 damages for alleged malpractice, but the amount was reduced by the trial court to $4,500. The supreme court says that the assignments of error presented but one question: Did the evidence establish the defendant's alleged negligence? In considering the evidence, the supreme court was guided by the rule that a physician is bound only to exercise such reasonable care and skill as is usually exercised by physicians in good standing in their profession, and the court assumed that the rule applies to the treatment of disease by the application of roentgen rays.

In October, 1918, the plaintiff went to the defendant's office for a medical examination, in the course of which the defendant discovered that she had eczema on both ankles. He advised the roentgen-ray treatment, and began it in November. The defendant testified that on the first four occasions the two ankles were exposed to the rays at the same time, and the right ankle alone on two subsequent occasions. He said that the exposures lasted from ten to fifteen minutes, while the plaintiff said that they continued for twenty minutes. The defendant said, further, that the feet were brought together, the left above the right, and that he endeavored to arrange them so that the focus of the ray tube would be on the diseased portion of both ankles. He also testified that there was a device on his machine for measuring the electric current, but that he did not use it, because it would not measure the amount of current going through the tube, which he could estimate fairly accurately. He admitted that modern machines were equipped with a device which exactly recorded the current passing through the tube. After each treatment he looked for a reaction, but saw no evidences of it until after the final exposure. A little later the evidences of a reaction became pronounced, for on December 12 the left ankle was blistered and ulcerating. Until January 21, he treated the plaintiff for the sore on that ankle, which quite clearly was the result of a burn caused by exposure to the roentgen rays. Then the plaintiff dismissed him, and consulted another physician, who continued to dress the sore until the latter part of March, 1919, when he had the plaintiff taken to a hospital and removed a quantity of scirrhous tissue from the ankle, and removed a part of the Achilles tendon. A second operation, for the removal of more dead tissue, was performed in January, 1920; and at the time of the trial the wound had not yet healed. All the witnesses agreed that the roentgen-ray treatment of eczema is common, and that it should not result in a burning of the tissues. The defendant accounted for the fact that the left ankle was burned, while the other was not, on the theory that there was an unexpected reaction in the left ankle—something different from what is normally to be expected, owing to an idiosyncrasy or peculiar pathologic condition in the flesh of the left ankle. To strengthen that theory he pointed to the fact that there was more eczema on the right than on the left ankle, and that it received two more treatments than the left, and was not burned at all.

An expert witness for the plaintiff, who examined her ankle a short time before the trial, testified that, in his opinion, the ankle had received more than a skin dose of roentgen rays. Another expert gave it as his opinion, based on the defendant's testimony as to the manner in which the ankles were placed, that they did not receive an equal dosage; that the left ankle got about 25 per cent. more of the active rays than the right, and that the burn could not be ascribed to any idiosyncrasy peculiar to the left ankle. Viewing all of the evidence in the light most favorable to the plaintiff, the court holds that it was sufficient to support the verdict of the jury. Reasonable men might honestly differ in their opinions respecting the defendant's alleged negligence in treating the plaintiff in the manner described in his own testimony. The fact that the right ankle was not burned, and that the disease yielded to the treatment administered to that ankle, was entitled to much weight, but was not controlling, under the circumstances.

Evidence of Unlawful Sale of Morphin

(Sims v. United States (U. S.), 268 Fed. R. 234)

The United States Circuit Court of Appeals, Eighth Circuit, in affirming a judgment of conviction of defendant Sims of violating the Harrison Narcotic Law in making a sale of morphin without having a license as a dealer, says that Sims was a colored man practicing medicine. He had a government license to dispense such drugs as a physician in his practice, but none as a dealer. Noting that he was purchasing large quantities of morphin and opium derivatives from druggists, an antinarcotic inspector suspected that he was unlawfully using them. The inspector secured the services of one Lamar, a morphin addict. The inspector, accompanied by another inspector and a deputy marshal, searched Lamar and ascertained that he had no drugs with him. They gave him $15 in marked money and kept him in view constantly until he entered the stairway leading to Sim's office. In five or ten minutes Lamar returned with a sealed bottle containing about 55 grains of morphin, which was taken from him, marked for identification, and retained by one of the inspectors until the trial. After procuring the morphin from Lamar, the officers went up at once into Sims' office and found him in possession of the marked money. Sims admitted on the witness stand giving Lamar a bottle containing about 55 grains of morphin and receiving $15 from him. His defense was that Lamar had come to him for treatment for the morphin habit, and that the morphin was given for that purpose only, and the money received as part payment for the treatment. The explanation of the large quantity of morphin was that Lamar represented that he would be away from town for several days, and this quantity was to cover the period of absence. The method of treatment was by progressively reducing the average consumption by 1 grain a day until the patient was reduced to 1 or 2 grains a day, when an intensive treatment of baths, purgatives and other drugs was to be employed for a few hours. Lamar swore that there was no understanding or arrangement for any treatment, but that he simply bought the drug. Sims swore that he questioned Lamar as to his age, length of drug habit, and average daily consumption. The broad issue thus presented to the jury was whether Sims had given the morphin to Lamar as part of a treatment in good faith for the morphin habit. The assignments that the verdict was contrary to the law and evidence and based on insufficient evidence were not sound. The issue of fact was clear-cut, and supported by substantial testimony. Nor was it error, on cross-examination, to require Sims to exhibit the record of his disposition of narcotics. That was the record required by law to be kept. Whatever the weight of this testimony, its competency was clear on the issues both of good faith and of the character of business conducted by Sims. The testimony of the officers that, when they went up to Sims' office, they searched it and found eight or ten bottles of morphin and three or four bottles of cocain was pertinent to the question of whether Sims was dealing in the drugs.

Defendant Bringing Physician Into Injury Case

(Fisher v. Milwaukee Electric Railway & Light Co. et al. (Wis.), 180 N. W. R. 269)

The Supreme Court of Wisconsin says that after the plaintiff had sued the defendant company it filed a cross-complaint, and a physician was made a party defendant for the purpose of responding to such cross-complaint. The company alleged that the injury sustained by the plaintiff was a Colles fracture of the left wrist, which was easily remediable by ordinary surgical treatment, and that, although the company offered the services of competent physicians, the plaintiff rejected these and secured the services of the physician referred to, who so negligently and carelessly treated the plaintiff's injury that he caused a partial loss of the use of the plaintiff's left hand and forearm, and produced, by failing

to use ordinary surgical skill and by improper bandaging of the fracture, an ischemic paralysis of the arm and forearm. Wherefore the company asked that, if a recovery be had against it for the injuries due to the alleged improper treatment by the physician, it be permitted to recover from him such damages as were in excess of those which would have followed the plaintiff's injury had she been treated with ordinary surgical skill. The result was that the physician was made a party defendant "for the purpose of responding to the cross-complaint of the defendant" company; but it was afterward ordered, on the physician's demurrer to the cross-complaint, that the cross-complaint be dismissed, and that he be dismissed as a party defendant to the action.

In reversing that order, with directions to overrule the physician's demurrer, the supreme court holds that the cross-complaint stated a cause of action against the physician in favor of the company, under the provisions of Section 2610 of the Wisconsin Statutes. Under the provisions of that section, it was within the discretion of the circuit court to refuse to make a third party a defendant; but when that court had once exercised its discretion, a review by it of its order could not be had by moving to dismiss the cross-complaint as to the physician. Whether or not, if motion on proper showing therefor had been made seasonably by the physician, the circuit court might have modified or corrected its order is not determined.

Under the facts that appeared from the pleadings, it was plain that the plaintiff might recover her entire damages from the defendant company, even though they may have been caused in part by the negligent treatment given the plaintiff by the defendant physician. It was contended on behalf of the physician that the principles applicable to suits against joint tort-feasors or wrongdoers applied, but the argument in support thereof was unsound. It appeared that the liability of the physician, if there was any, was due to his want of care and skill as a surgeon, while the liability against the company was due, if there was any, to its failure to exercise ordinary care. They were not in any sense of the term joint tort-feasors. The liability of the physician to the company did not arise by reason of his liability for contribution in the event of a recovery against the company. His liability was a liability over, and arose in favor of the company by reason of the fact that it was compelled to pay damages which were primarily due to his alleged negligence, and for which the plaintiff might have maintained an action against him. The company, being compelled to pay these damages, was subrogated to the plaintiff's rights against him, as she might not twice recover compensation for the same injury.

Again, it was contended, on behalf of the physician, that there could be no right of action in favor of the company against him until the judgment had been paid. This, no doubt, is the ordinary rule. But Section 2610 applies as well to tort actions as to actions on contract, although the trial court should, in the exercise of its discretion, when called on, recognize the established distinction between the rights of parties in the two classes of actions.

Testimony as to Services of Nurse Not Privileged

(Keller v. Gerber (Calif.), 193 Pac. R. 809)

The District Court of Appeal of California, Third District, in affirming a judgment in favor of the plaintiff for services in caring for and nursing a man of whose will the defendant was the executor, says that it was contended that the testimony of two physicians was privileged, and hence inadmissible in evidence, under the provision of the statute that a licensed physician or surgeon cannot, without the consent of his patient, be examined in a civil action as to any information acquired in attending the patient, which was necessary to enable him to prescribe or act for the patient. But the court does not think that the testimony of these physicians was inadmissible under the statute, their testimony being simply as to the general character and value of the services rendered by the plaintiff as nurse, and not as to any information acquired in attending the patient which was necessary to enable them to prescribe or act for the patient. The Supreme Court of California denied the defendant a hearing.

Society Proceedings

COMING MEETINGS

American Neurological Association, Atlantic City, June 13-15.
American Ophthalmological Society, Swampscott, Mass., June 14-15.
American Psychopathological Association, Atlantic City, June 11.
American Surgical Association, Toronto, Canada, June 14-16.
Maine Medical Association, Bangor, June 28-29.
Montana, Medical Association of, Billings, July 13-14.
National Tuberculosis Association, New York, June 13-17.
Nevada State Medical Association, Elko, June 24-25.
Southern Minnesota Medical Association, Winona, June 27-28.
Tri-State Meeting (Oregon, Washington and Idaho), Portland, Ore., June 30-July 2.

MEDICAL ASSOCIATION OF GEORGIA

Seventy-Second Annual Meeting, held at Rome, May 4-6, 1921

The President, DR. E. T. COLEMAN, Graymont, in the Chair

Vesical Neoplasms from the Cystoscopist's Standpoint

DR. S. A. KIRKLAND, Atlanta: Diagnosis of vesical growths can be accomplished by the use of the cystoscope, but not with absolute certainty in every case, for there are times when profuse hemorrhage obscures the field. One can also demonstrate the effect a growth has on the surrounding tissues.

Pelvic Infections in the Female

DR. LEMUEL J. JOHNS, Tallapoosa: Pelvic infections in the female are divided into (1) the descending or blood stream infections, which include infection by contiguity of tissue, and (2) the ascending infections, which will include pathogenic bacteria introduced into the urogenital tract, and infections resulting from the action of ever present bacteria on points of lowered resistance from various causes. The strictest surgical cleanliness and a most painstaking asepsis on the part of both surgeon and patient are enjoined to prevent the introduction of foreign pathogenic bacteria into the operative field, thereby causing death and devitalization of organs and parts which might otherwise have escaped injury.

Chronic Nephritis

DR. M. FORD MORRIS, Atlanta: The treatment of chronic nephritis is directed mainly to the minimizing of the work of the kidney. In the edematous group, the intake of water and sodium chlorid is kept very low; protein is best not given abundantly. In the high blood pressure group, the protein intake is governed by the amount of nonprotein nitrogen of the blood. If there is not much nitrogen retention, there is little need of restriction of the amount of protein intake; but if there is considerable nitrogen retention, the protein intake should be extremely low. In the high blood pressure group, a moderate amount of water, from 1,200 to 1,800 c.c., and a moderate amount of sodium chlorid, from 3 to 5 gm. daily, are advisable. Relief of special symptoms is indicated, likewise conservation of the patient's health and strength.

The Schoolchild and His Problems

DR. J. ALLEN JOHNSTON, Lafayette: The schoolchild is besieged on every side by unhealthful conditions, both mental and physical, which lower his vitality, decimate his efficiency, despoil the pleasurable profits of his school life, and even deprive him of a healthy adult career. One school worker among 5,000 pupils is almost helpless. He can only point the way. With the united efforts of the profession of medicine and allied workers, wonderful results will in the future be obtained.

Relation of Public Health Work to Physicians' Reports

DR. T. F. ABERCROMBIE, Atlanta: Vital statistics are one of the very foundations of the medical man's reasoning and practice. They form the evidence from which he may deduce findings in references to marriages, births, morbidity, rates of sickness and disease, the causes of death, and the actual and comparative health of communities and nations. Quantitative medicine naturally inquires into methods of treatment and prevention, and discusses results. A very small

percentage of the communicable diseases are reported to the state board of health. The only way we shall ever get sufficient appropriations to meet the needs of the state is to be able to show the legislature in exact figures just how much disease there is in the state that can be prevented. The only way to get this information is for physicians to report to the proper authorities all communicable diseases, births and deaths.

Pyloric Stenosis of Infancy from the Surgeon's Point of View

DR. C. W. ROBERTS, Atlanta: There can be no doubt as to the need of surgery in the average case of hypertrophic pyloric stenosis in infancy. The whole question, as concerns the need of operation in a given case, hinges not on the size of the tumor, but on the completeness of the pyloric obstruction. Whether unoperated patients are handicapped by a persisting abnormal pylorus has not been settled. In the final analysis, hypertrophic stenosis is to be looked on as a surgical disease, and most patients will die if treated from the medical aspect alone.

Free Diphtheria Antitoxin

DR. THOMAS D. WALKER, Macon: Georgia had last year 401 deaths from diphtheria, or 14.5 per hundred thousand of population, nearly as many deaths in one year as South Carolina has had in five years. The economic saving to the citizenship of Georgia through the free distribution of diphtheria antitoxin can only be approximated at this time.

Significance of Emaciation in Physical Diagnosis

DR. JOHN T. MOORE, Sycamore: In my opinion, many of our cases of general anasarca and edema are toxic in origin and depend on faulty chemistry rather than on cardiovascular mechanics. It seems perfectly logical to conclude that, as infection progresses and the blood becomes laden with toxins, this toxin impairs the functional power of the cells throughout the cardiovascular system. In these cases we get first infection, toxemia, functional emaciation, actual emaciation and, lastly, atheroma and fibrosis. General arteriosclerosis is but an end-product of disease, and the pathologic condition antedating it should be corrected before it appears.

Use of Vaccines in Chronic Bronchitis

DR. GEORGE F. KLUGH, Atlanta: Since we almost always have mixed infections in these conditions, it is essential that all of the organisms present in a given case be included in the vaccine. Vaccines are prepared from the original cultures so that we get the organisms roughly in proportion to their number in the sputum. Best results are usually obtained by giving small doses at intervals of from three to five days over a long period of time. To avoid severe reactions, it is best to start with a small dose and increase until the desired reaction is obtained. Usually a chronic condition is changed into a subacute condition by vaccines. Too large or too frequent doses in subacute or acute conditions are likely to cause too severe reactions, both local and systemic. When severe reactions occur, the dose should be reduced and sufficient time allowed for the reaction to subside before another dose is given.

Sacral Anesthesia

DR. HOMER L. BARKER, Carrollton: If this anesthesia were used in all prostatectomies, even with a general anesthetic, the mortality would be lowered; for it materially lessens the shock that so often follows the enucleation of the gland. Less morphin is required after operation by this method than by a general anesthesia.

Syphilis Among the Insane

DR. GEORGE L. ECHOLS, Milledgeville: I carried out two comparative treatments on two fairly well balanced groups of colored female syphilitics. The medication for one group was arsphenamin from 0.3 to 0.4 gm. weekly, and mercuric salicylate, 1 grain, hypodermically into the gluteal muscles fortnightly. In the second group, treatment was started as a makeshift and consisted of mercuric chlorid, 1.32 gram, and potassium iodid, 5 grains, three times daily. This consisted of about thirty weeks' treatment in three ten week series. At the end of each ten weeks, the negative Wassermann reactions were: first ten weeks, from 36 to 15.7 per cent.; second ten weeks, from 47.6 to 39.1 per cent, and at the end of the third ten weeks, from 72.2 to 68.7 per cent. in favor of the mercuric chlorid and potassium iodid. Thirteen of these groups were neurosyphilitics. More negative spinal fluids were obtained by mercuric chlorid and potassium iodid. This is given only as the result of an accidental comparative test. The best results should be obtained by a combination of the three drugs.

Infection of the Maxillary Antrum

DRS. G. D. AYER and J. H. BUTT, Atlanta: Antral infections are much more frequent following nasal conditions than arising from the teeth. Lavage of the antrum in acute conditions is the most satisfactory treatment, since with three or four irrigations an ordinary acute empyema will clear up. Chronic antrum infection is best treated by radical operation, preferably the Caldwell-Luc operation or a modification, with the cleaning up of other pathologic conditions of the nose.

Radical Versus Conservative Operation on the Uterine Appendages

DR. MARION T. BENSON, Atlanta: We should conserve all healthy tissues of the reproductive organs, but we should also remember that patients are seeking permanent relief, if possible; therefore, we should be more thorough in the first operation, thereby preventing subsequent operations. The secret of good gynecologic work is, first, an intelligent operation, removing all diseased tissue, while, if possible, conserving a small amount of ovarian tissue; second, caring for these patients after operation, instead of turning them loose without any further treatment.

Treatment of Fractures

DR. F. G. HODGSON, Atlanta: In order to get the best end-results in the shortest time and with the least discomfort, fractured bones should be handled by a bone specialist or orthopedic surgeon whenever one is available. Fractures require careful supervision during the process of healing. Judicious use of massage, electricity and motions may be of great benefit during the process of healing of a fracture in order to maintain the circulation in the limb, to avoid stiffness in neighboring joints, and to prevent atrophy of the muscles.

Influences Exercised by Family Physician on Mental Health of Community

DR. N. M. OWENSBY, Atlanta: The first person to come in contact with the mentally ill is the family physician, and the influence wielded by him on the mental health of the community cannot be overestimated. It depends on him whether or not we shall continue to have these healing cults among us.

Goiter

DR. EDWARD G. JONES, Atlanta: I believe that a pathologic condition of the thyroid gland is less prevalent in the colored than in the white race. Excluding the goiter of adolescence, the ratio of toxic to nontoxic goiters among men and women is about the same. When the inquiry includes aunts and cousins, almost exactly 25 per cent. of my patients had one or more relatives with goiter. When the inquiry is restricted to the immediate family, this percentage is cut in half. I have been unable to associate the occurrence of goiter with drinking water as an etiologic factor. My mortality in toxic goiter is less than 1 per cent. In the whole operative series, the mortality is 1.4 per cent. The mortality last year was 0.8 per cent.

Interpretation of Headaches

DR. MILTON THOMAS EDGERTON, JR., Atlanta: Pain on one side of the head suggests migraine, sinusitis, middle ear diseases, toothache, brain abscess or brain tumor. Pain in the back of the head or neck suggests myalgia, unbalance of the ocular muscles, cerebellar disease, meningitis or mastoiditis. Vortical pain suggests constipation and neurasthenia, while the headache in uremia is either frontal or occipital in most cases. Throbbing headaches are generally

due to increased blood pressure, especially if increased on motion and relieved by rest in the recumbent position. Paroxysms of pain suggest neuralgia. The time of day of the headache often gives helpful information. Headache worse at night with disturbed sleep often means organic brain disease. Headache which is better after rest in bed is usually due to toxic or functional causes. Headaches early in the morning are generally due to poor ventilation, slight astigmatism, nasal obstruction or frontal sinusitis. Headaches in the evening are frequently due to mental overwork, eyestrain or refractive errors. Vomiting associated with headache suggests migraine, uremia, arteriosclerosis, or organic brain disease. In neurasthenia, headaches may follow a few minutes' use of the eyes, while in refractive errors the headache does not follow for several hours in most cases.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Boston Medical and Surgical Journal

May 19, 1921, 184, No. 20

Essential Factors of Cancer Causation. J. W. Shannon, San Diego, Calif.—p. 505.
Spinal Curves in Growing Children. E. H. Bradford, Boston.—p. 512.
Leprosy in the Holy Land. I. Alcazar, Boston.—p. 518.
*Lymphatic Drainage of Ascitic Abdomen Through Paraffined Veins. B. Behan, Pittsburgh.—p. 521.
A New Tonsil Hemostat. F. J. McVey, Boston.—p. 524.

Lymphatic Drainage of Ascitic Abdomen Through Paraffined Veins.—In two cases of hydroperitoneum Behan made use of a method of drainage which he believes to be original with him. A section of the internal saphaneous (about 12 inches) is removed and immediately threaded into a glass rod of suitable size. It is then imbedded in paraffin as though it were being prepared for microscopic study. Later under nitrous oxid-oxygen anesthesia, an incision (Israel) was made over the kidney area the same as for a nephropexy. The fatty capsule of the kidney was pushed backward and an opening was made into the peritoneal cavity below the level of the lower pole of the left kidney. The paraffined vein was now placed in boiling water and again thoroughly sterilized. While it was still hot, the glass rod was removed. This left a rigid tube composed of a vein permeated with paraffin. Three sections were now made and the ends of each cut transversely, so that two flaps were made at the end of each section. The sections were from 3 to 6 inches long. One section was then inserted into the upper portion of the peritoneal incision and the edges flapped back and sutured to the peritoneum, so that the end of the tube led directly to the peritoneal cavity. The other end of the vein was then inserted into the fatty perirenal tissue near to the lower pole of the kidney, care being taken not actually to attach it to the fascia, which was intimately connected with the kidney itself. The second tube was then fastened in the peritoneal cavity, the same as the first. It was then pushed down between the peritoneum and the fascia covering the pelvis. It was inserted in the loose tissue, toward the external iliac artery, over the pelvic brim. Several small nicks were made in it so that fluid could leak through. The same has been done with the other tube. One extremity of the third tube was inserted into the peritoneal cavity and the other end was carried through the abdominal muscles and then through the subcutaneous fascia, almost to Poupart's ligament. Before the incision was closed, it was noticed that all the tubes were patulous, so that fluid was being discharged from all three into the tissues. The tissues were now approximated with catgut and the skin with silkworm gut. Both patients were relieved very greatly from the symptoms resulting from the Ascites. Now, instead of using the patient's own veins, Behan saves varicose veins removed at operation. These are threaded over a glass rod and are hardened and parafined the same as is done in preparing pathologic specimens for sectioning.

Canadian Medical Association Journal, Toronto

May, 1921, 11, No 5

Financing of Public Hospitals. M. T. MacEachern.—p. 311.
*Prognosis of Pulmonary Tuberculosis. F. H. Heise.—p. 314.
*Schick Test and Toxin-Antitoxin Immunization at Children's Home, Winnipeg. G. Chown.—p. 319.
*Prognostic Value of Study of Blood Creatinin in Nephritis. I. M. Rabinowitch.—p. 320.
*Sequels of Suprapubic Prostatectomy. G. S. Gordon.—p. 323.
Night Blindness at the Front. P. G. Bell.—p. 325.
Physiology and Pharmacology of Mammary Gland. V. E. Henderson.—p. 328.
Thirty-Three Cases of Foreign Bodies in Esophagus, Bronchi and Larynx. G. W. Fletcher.—p. 332.
Diseases of Ethmoid and Sphenoid Sinuses. J. H. Harter.—p. 337.
Non-Union Following Fracture. D. E. Robertson.—p. 343.
Analysis of Some Cases of Perforation of Stomach and Duodenum. H. Williams.—p. 347.
Use of Pituitary Extract and Scopolamin-Morphin in Obstetrics. R. Mitchell.—p. 351.
Benign Neoplasms of Female Pelvis. F. L. Horsfall.—p. 356.

Prognosis of Pulmonary Tuberculosis.—An analysis of 300 incipient and moderately advanced cases after from three to six months treatment, made by Heise shows that râles when present at the onset of treatment will, after from three to si months treatment, tend either to increase or diminish in more than half the cases. Only comparatively infrequently do they disappear or appear when previously absent. A fair number (about one in five or six) show no change in the area of râles heard. The roentgen ray will show no improvement in about one of seven cases, and approximately two thirds will show definite improvement. Nearly three quarters of the cases will show freedom of symptoms of activity. After from five to eleven years those patients in whom the râles increased in area while under treatment showed the highest mortality. When râles remained stationary during treatment prognosis was not unfavorably influenced. Incipient or minimal cases have a better immediate and ultimate prognosis than the moderately advanced; moderately advanced a better prognosis than far advanced cases. Regardless of extent of lesion the cases becoming inactive under treatment have a much better prognosis than those which retain symptoms of activity. After the lapse of twenty years the cause of death was pulmonary tuberculosis in most of the traced cases. Those cases, which were inactive after treatment have a better prognosis than those having symptoms of activity. Tubercle bacilli when present in the sputum make the prognosis much less favorable than when absent. This refers to longevity general mortality and mortality from tuberculosis, and holds true for the incipient and moderately advanced cases.

Shick Test in Diphtheria.—Of 156 children tested by Chown, sixty-four gave a negative Schick reaction; eleven of these had had diphtheria previously. Of the ninety-two giving a positive reaction, seven had had diphtheria indicating that an attack of diphtheria does not protect absolutely against another attack.

Prognostic Value of Blood Creatinin in Nephritis.—Rabinowitch cites fourteen cases in which creatinin determinations were made and proved to be prognostic value. Each of these cases showed the clinical signs, and symptoms of chronic nephritis, and the diagnosis was corroborated in each case by the postmortem examinations.

Sequels of Suprapubic Prostatectomy.—The sequels reported by Gordon are the result of continued obstruction to urination and manifest themselves as dysuria, with or without concurrent lithiasis, and the more remote consequences of back pressure, chronic uremia and chronic septic absorption.

Endocrinology, Los Angeles

May, 1921, 5, No. 3

Suprarenal Insufficiency. I. Physiologic Data. G. N. Stewart, Cleveland.—p. 283.
Microscopic Appearance of Two Testes Nine Months Following Unilateral Vasectomy. H. Wheelon, St. Louis.—p. 307.
*Internal Secretion of Sandstroem's Glands; Parathyroid Hypofunction and Eclampsia. A. C. Massaglia, Chicago.—p. 309.
*Hypopituitarism, Froelich Type. M. B. Kay, Detroit.—p. 325.

Function of Parathyroids.—The results of experiments made by Massaglia are summarized as follows: The parathyroid glands appear to have the function of simpler chemical composition the complex bodies of catabolic changes, or

toxic substances derived from pregnancy and puerperium, from the intestine, and from muscular fatigue. They also demonstrate that an intoxication from a parathyroid hypofunction injures, more or less, the kidneys, the livr, and the nervous system; that there exists between the liver and the parathyroids an indirect functional correlation in neutralizing toxic substances which arise from the intestine. A parathyroid hypofunction in pregnancy or in puerperium is then certainly a pathogenic factor of eclampsia.

Hypopituitarism; Froelich Type.—Kay believes his case is one of the youngest cases of the Froelich type of hypopituitarism to be noted. The child was a full term baby; delivery was easy. It had always been breast fed and had suffered from no acute illness. Development was apparently in no way remarkable until the third month, at which time it was noticed that the weight began to increase rapidly. The mother also noticed that from this time on the mentality of the child was regressing; its stupidity becoming more and more pronounced. Sleep was almost continuous, and the waking moments were devoted almost entirely to feeding. The child did not sit up until the eighth month and at the ninth would not sit alone, and supported his head with difficulty. The feedings were taken quite well, and there was a mild constipation. A very marked polyuria was present. Treatment was started with thyroid extract, one-fourth grain, three times a day, whereupon the polyuria immediately disappeared, the protrusion of the tongue ceased, and the dribbling of saliva stopped. The thyroid treatment was gradually increased in amount, and very shortly pituitary (whole gland) was added, in increasing dosage, until at the present time, the child is taking 3 grains of thyroid extract and 9 grains of pituitary extract daily. Almost immediately the somnolence decreased, the mental condition improved and the child now notices objects and will reach for them. He can at this time (December, 1920) stand by holding on to a chair. The weight remains constant.

Illinois Medical Journal, Oak Park

May, 1921, **39**, No. 5

Special Points in Surgery of Gallbladder and Ducts. G. W. Crile, Cleveland.—p. 401.
Some Medical Economics Problems. E. H. Ochsner, Chicago.—p. 406.
Subsequent Treatment in Casualty Cases. D. Deal, Springfield.—p. 413.
Why Massachusetts Physicians Oppose So-Called Maternity Bills. C. E. Mongan, Somerville, Mass.—p. 416.
Megacolon. T. W. Nuzum, Janesville, Wis.—p. 417.
Care of Expectant Mother. I. F. Stein, Chicago.—p. 420.
Results in Open Treatment of Fractures. J. F. Smith and M. L. Jones, Wausau, Wis.—p. 424.
Teeth in Their Relation to Systemic Disease or Infection, from Standpoint of Radiologist. F. S. O'Hara, Springfield.—p. 425.
Hemorrhagic Disease of New-Born. F. C. Rodda, Minneapolis.—p. 427.
Natural Factor for Estimating Total Solids in Specimens of Urine and Relatively Normal Amounts of Individual Constituents. C. E. M. Fischer, Chicago.—p. 430.
Foreign Bodies in Brain. H. Swanberg, Quincy, Ill.—p. 433.
Hysterectomy. B. L. Ramsay, Chicago.—p. 437.
Ophthalmic Use of Some More Recent Therapeutic Preparations. H. S. Gradle, Chicago.—p. 440.
Some Points to be Considered in Campaign Against Tuberculosis. A. Egdahl, Rockford.—p. 443.

Journal of Biological Chemistry, Baltimore

May, 1921, **46**, No. 3

Studies on Organic Regulation. Composition of Urine and Blood of Hibernating Frog, Rana Virescens Kalm. (Pipiens Gm.) H. C. Van der Heyde, Morgantown, W. Va.—p. 421.
*Effect of Age on Pancreatic Enzymes. F. Fenger and M. Hull, Chicago.—p. 431.
Nitrogen Distribution of Proteins Extracted by Dilute Alkali from Pecans, Peanuts, Kafir and Alfalfa. C. T. Dowell and P. Menaul, Stillwater, Minn.—p. 437.
Amino-Acids in Nutrition. B. Sure, Fayetteville, Ark.—p. 443.
Synthesis of Inosite Hexaphosphoric Acid. S. Posternak, Geneva, Switzerland.—p. 453.
Basic Amino-Acids of Glycinin, Globulin of Soy Bean, Soja Hispida, as Determined by Van Slyke's Method. Washington, D. C.
Hydrogen Electrode Vessel Adapted for Titrations. A. B. Hastings, New York.—p. 463.
Simple Method for Direct Quantitative Determination of Sodium in Small Amounts of Serum. B. Kramer and F. F. Tisdall, Baltimore —p. 467.
*Rate of Nitrogen Elimination. W. S. McEllroy and H. O. Pollock, Pittsburgh.—p. 475.
*Study of Chlorin Content of Milk and Blood after Ingestion of Sodium Chlorid. W. Denis and W. R. Sisson, Boston.—p. 483.
Blood Bicarbonate Levels Following Administration of Sodium Bicarbonate. S. P. Reimann and H. A. Reimann, Philadelphia.—p. 493.
Comparison of Blood and Lymph Bicarbonate after Intravenous Injection of Sodium Bicarbonate. S. P. Reimann and M. D. Sauter, Philadelphia.—p. 499.
Growth and Reproduction on Simplified Food Supply. H. C. Sherman, M. E. Rouse, B. Allen and E. Woods, New York.—p. 503.
"Bios" of Wildiers and Cultivation of Yeast. M. Ide, Louvain, Belgium.—p. 521.
"Bios" of Wildiers and Cultivation of Yeast. M. B. MacDonald and E. V. McCollum, Baltimore.—p. 525.
Inversion and Determination of Cane-Sugar. A. R. Rose, New York. —p. 529.
*Determination of Carbohydrates in Vegetable Foods. V. C. Myers and H. M. Croll, New York.—p. 537.
Animal Utilization of Xylose. E. W. Rockwood and K. G. Khorozian, Iowa City.—p. 553.
Relation of Plant Carotinoids to Growth and Reproduction of Albino Rats. L. S. Palmer and C. Kennedy, Columbia, Mo.—p. 559.
Anaerobic Respiration in Some Pelecypod Mollusks. C. Berkley, Nanaimo, B. Col.—p. 579.
Preparation and Properties of Some Salts of Uric Acid. L. J. Curtman and D. Hart, New York.—p. 599.

Effect of Age on Pancreatic Enzymes.—Storing powdered pancreas preparations under ordinary conditions for one year reduces their diastatic and lipolytic activities very materially, Fenger and Hull found, certain samples having become almost completely inert. The proteolytic activities of the same samples, however, remain quite constant. This clearly indicates that trypsin, occurring both in the desiccated natural gland and in the activated preparations, is by far the most stable of the pancreatic enzymes.

Rate of Nitrogen Elimination.—Studies made by McEllroy and Pollock on the nitrogen elimination at two hour intervals for twenty-four hours, and the urea and nonprotein of the blood at one hour intervals after feeding dogs lean meat indicate that the rate of nitrogen elimination is an index of the rate of digestion and absorption.

Effect of Diet on Chlorin Concentration of Milk.—Experiments carried out by Denis and Sisson to determine the effect of diet on the chlorin concentration of milk showed that on a salt-free diet for a period of twenty-four days no change took place in the chlorin concentration of milk from a goat giving about 150 c.c. a day, also that the ingestion of 1.2 gm. of sodium chlorid per kilogram of body weight, daily, over a period of six days, causes no change in chlorin concentration of the milk.

Determination of Carbohydrates in Food.—A relatively simple colorimetric method is described by Myers and Groll for the determination of the amount and form of the available carbohydrate in vegetable foods. Results are given for analyses of vegetables and fruits such as are used in feeding diabetic patients. It is shown that a large proportion of the available carbohydrate occurs in a soluble form. The effect of different factors in cooking on the removal of carbohydrate from vegetables is discussed. The conclusion is reached that the soluble form of the carbohydrate and the increase in time of boiling and in volume of boiling water, favor the removal of carbohydrate from vegetables.

Journal of Industrial Hygiene, Boston

May, 1921, **3**, No. 1

*Output Study of Users and Nonusers of Tobacco in Glass Blowers. J. P. Baumberger, E. E. Perry and E. G. Martin.—p. 1.
*Survey of Carbon Monoxid Poisoning in American Steel Works, Metal Works, Metal Mines and Coal Mines. H. S. Forbes, Boston. —p. 11.
*Etiology of So-Called Anilin Tumors of Bladder. A. Hamilton, Boston. —p. 16.
Health in Mercantile Establishments. III. Common Sanitary Defects in Stores. A. B. Emmons, Boston.—p. 29.

Effect of Smoking on Glass Blowers.—Baumberger and others found that smoking has little effect on output rate in glass blowers. Chewing markedly lowers output rate in this strenuous physical occupation. Light smokers have a slightly lower output rate than heavy smokers in this strenuous physical occupation.

Carbon Monoxid Poisoning.—Forbes states that carbon monoxid as met with in metal and coal mines and about blast furnaces in this country rarely causes late after-effects following acute severe gassing. When such effects do appear, there is evidence, almost always, of a preexisting pathologic condition. Frequent exposure to carbon monoxid causes

headache and malaise, but no evidence has been found of a cumulative harmful effect. It is possible to acquire some tolerance to carbon monoxid. A recent advance in treatment has been made by adding carbon dioxid to the oxygen inhalations administered. Recovery is three times as rapid as when oxygen alone is used.

Anilin Tumors of Bladder.—In view of the proof that chronic arsenical poisoning is capable of producing a continual irritation which gradually results in cell proliferation, benign or malignant, and since the possibility of hydrogen arsenid poisoning is admittedly present in all the processes with which the bladder tumors of anilin workers have been associated, it seems fair to Hamilton to insist that hydrogen arsenid is a possible cause which must be considered. There is no such proof of the power of amido compounds to cause tissue proliferation.

Medical Record, New York

May 21, 1921, **99**, No. 21

Focal Infection of Cervix and Its Relation to Systemic and Mental Diseases. F. W. Langstroth, Jr., New York.—p. 857.
Electrical Nature of Man. A. Abrams, San Francisco.—p. 862.
Technic of Psychoanalysis as Practised in a Case of Phobia. H. Laveson, New York.—p. 864.
Endocrinology; Illustrative Cases. J. W. Torbett, Marlin, Texas.—p. 866.
*Volvulus of Intestine. H. Cohen, New York.—p. 868.
Anesthesia in Dental Surgery. M. Ecker, New York.—p. 870.
Rectal Constipation: Its Significance and Treatment. E. J. Clemons, Los Angeles.—p. 871.

Volvulus of Small Intestine.—Cohen cites a case of volvulus of the small intestine. This gangrenous intestine was found coiled on itself from right to left about 180 degrees. A band of adhesion constricted it at the base. The mass consisted of ileum about 1 foot away from the ileoctcal junction. The band was cut, the coils untwisted, intestinal clamps were applied, and the entire mass (28 inches) was resected. An end-to-end anastomosis (McGrath method) was then performed. The patient made an uninterrupted recovery.

New York Medical Journal

May 18, 1921, **113**, No. 14

*Bacteriology of Alimentary Tract. N. Mutch and J. Mutch, London.—p. 713.
So-Called Diseases of Blood. O. T. Osborne, New Haven, Conn.—p. 721.
Blood Chemistry in Modern Medicine. M. F. Morris, Jr., Atlanta, Ga.—p. 726.
Bacteriology and Pathogenesis of Pneumonia. R. L. Cecil, New York.—p. 728.
Willems Treatment of Joint Lesions. H. Cohen, New York.—p. 730.
Willems Treatment of Knee-Joint Injuries. E. H. Eising, New York.—p. 734.
Orthopedic Surgery from Psychologic Point of View. H. Keller, New York.—p. 735.
Mobile V Colon, Its Causes, Effects and Correction. E. M. Mosher, Brooklyn.—p. 741.
Points of Prognostic Importance in Pneumonia. H. Apfel, Brooklyn.—p. 744.
Nonsurgical Methods of Treating Cancer. H. K. Pancoast, Philadelphia.—p. 746.
Neuropsychiatric Work at Camp Devens, Mass. L. V. Briggs, Boston, and M. B. Hodskins, Palmer, Mass.—p. 749.
Factors Concerned in Incidence of Contagious Diseases. A. I. Blau, New York.—p. 750.
Therapeutic Management of Arteriosclerosis and Its Relation to Etiology of This Disease. N. P. Norman, New York.—p. 751.
Influenza Versus Typhoid Fever. B. Frankel, New York.—p. 754.
Postgraduate Beginnings in this Country. T. E. Satterthwaite, New York.—p. 755.
Classification and Segregation of Male Inmates in New York City Prisons. J. A. Hamilton, New York.—p. 757.

Bacteriology of Alimentary Tract.—The Mutches found that glycophilia is a property peculiar to streptococci of alimentary origin, and is almost universal among the streptococci present in the bowel. It may therefore serve as a criterion for the differentiation of streptococci of alimentary origin from other streptococci. The proportion of streptococcal strains at any point which posses extreme glycophilia increases progressively at successive intestinal levels from mouth to anus. A streptococcus can possess extreme glycophilia and at the same time considerable infective power. Such an organism is particularly well equipped for the evolution of chronic infection and the owel. A well defined pattern of distribution of *Streptococcus longus* in the alimentary canal has been observed. Extensive streptococcal infection of the small intestine may exist even when repeated cultivation of the feces fail to yield any growth of *S. longus*. The presence of carbohydrate is the most potent factor in determining the dominance of glycophilic streptococci over *B. coli* at any level of the intestines. Laboratory experiments with symbiotic coefficients and clinical observations are recorded in support of this statement. Absolute suppression of *B. coli* by glycophilic streptococci takes place when the hydrogen ion concentration is measured by p_H 5.2. The streptococcus itself dies if the p_H falls below 4.6. *Streptococcus fecalis*, as well as glycophilic *S. longus*, can suppress *B. coli* when grown in glucose broth. This property is also possessed by a small proportion of long chained cocci from the mouth. The following factors appear to control the evolution of chronic streptococcal infection of the bowel: The presence in the mouth of centers for the production of glycophilic streptococci. Impaired digestion. Loci of stagnation in the intestines. Diminished resistance of the tissues generall or locally.

Northwest Medicine, Seattle

May, 1921, **20**, No. 5

Goiter. P. W. Sweet, Seattle.—p. 105.
Toxic Thyroid. W. F. Howard, Pocatello, Idaho.—p. 110.
Surgical Aspect of Goiter. J. T. Mason, Seattle.—p. 112.
Goiter Problem. H. C. Irwin, Pocatello, Idaho.—p. 115.
Interpretation of Basal Metabolic Rate in Toxic Goiter. J. E. Else, Portland, Ore.—p. 118.

Ohio State Medical Journal, Columbus

May 1, 1921, **17**, No. 5

Special Field of Neurologic Surgery After Another Interval. H. Cushing, Boston.—p. 293.
Morbid Conditions of Pelvic Organs in Women and Their Relations to Various Nervous Disorders. F. I. Shroyer, Dayton.—p. 302.
Tuberculosis with Reference to Gynecology and Obstetrics. W. D. Fullerton, Cleveland.—p. 305.
New Technic for Radical Extirpation of Penis. H. A. Baldwin, Columbus.—p. 308.
Obstetric Gleanings for 1920. W. Brehm, Columbus.—p. 310.
Radium's Place in Therapy. A. Strauss, Cleveland.—p. 315.
Evaluating Utility of Local Anesthesia in Major Surgery. J. L. DeCourcy, Cincinnati.—p. 321.
An Improved and Simplified Technic for Enucleating Tonsils with Especial Reference to Soft and Submerged Tonsils and New Instruments Used. A. H. Herr, Cleveland.—p. 324.
Erysipelas of Head and Face Treated with Bacterial Vaccines. J. H. Slevin, Detroit.—p. 329.

Surgery, Gynecology and Obstetrics, Chicago

May, 1921, **32**, No. 5

*Transplantation of Ureters into Large Intestine in Absence of Functionating Urinary Bladder. R. C. Coffey, Portland, Ore.—p. 383.
High Tracheotomy and Other Errors Chief Causes of Chronic Laryngeal Stenosis. C. Jackson, Philadelphia.—p. 392.
Immunity in Surgery. G. E. Armstrong, Montreal, Can.—p. 399.
*Acute Intestinal Obstruction. J. M. T. Finney, Baltimore.—p. 402.
Obstructions of Colon and Ileocecal Region. C. H. Peck, New York.—p. 408.
Enterostomy in Treatment of Acute Intestinal Obstruction. J. E. Summers, Omaha.—p. 412.
Toxic Agents Developed in Course of Acute Intestinal Obstruction, and Their Action. H. B. Stone, Baltimore.—p. 415.
Benign Gastric Ulcer in Known Syphilitic. A Résumé of Literature Concerning Diagnosis of Organic Gastric Syphilis. W. F. Fowler, Rochester, N. Y.—p. 419.
*Diagnosis and Treatment of Chorio-Epithelioma. S. H. Geist, New York.—p. 427.
Primary Ovarian and Primary Abdominal Pregnancy: Their Morphological Possibility. H. M. Ray, Pittsburgh.—p. 437.
Repair of Partial and Complete Lacerations of Perineum. A. Goldspohn, Chicago.—p. 443.
Normal Separation of Placenta. O. Frankel, Vienna, Austria.—p. 450.
Plastic Procedures for Obliteration of Cavities with Noncollapsible Walls. A. B. Kanavel, Chicago.—p. 453.
An Adjustable Extension and Suspension "Balkan" Frame. N. Allison, St. Louis.—p. 459.
Treatment of Long Standing Dislocations of Hip. J. Schoemaker, Holland.—p. 461.
*New Procedure in Treatment of Eclampsia. H. J. Davidson, Seattle, Wash.—p. 464.
Gastro-Intestinal Suturing Forceps. R. C. Chaffin, Los Angeles.—p. 465.

Transplantation of Ureters.—In four cases in which six ureters were implanted by Coffey function afterward seemed to be perfect. In a fifth patient with implantation of the seventh ureter into the cecum, the function of the kidney is not known. The man is in perfect health and never has had a symptom in the neighborhood of the involved kidney. The

principal force to be dealt with in implantation of a duct into the intestine Coffey says is static intra-intestinal pressure. The essential mechanical principle necessary to the uniformly successful implantation of the ureter is that the ureter shall be made to run immediately under the loose mucous membrane for a distance, before entering the lumen of the intestine.

Acute Intestinal Obstruction.—A study of 245 consecutive cases of intestinal obstruction was made by Finney, 217 patients were operated on, and seventy-six died, a mortality rate of 36 per cent. The operations varied from such simple procedures as the untwisting of a volvulus or division of a constricting band to resection of several feet of gangrenous bowel. In studying the different operations performed and the circumstances under which they were done, the result seemed to depend far more on the condition of the patient at the time of the operation, the length of time that had elapsed since the onset of the symptoms of obstruction, and the condition of the bowel than on the nature of he operation itself.

Chorio-Epithelioma.—Nine of the fourteen cases studied by Geist could be classified as choriocarcinoma. Three patients died. Of the three that died one developed a sepsis following a curettage and packing, one an ectopic choriocarcinoma died on the operating table from hemorrhage, while the third was admitted moribund with generalized metastases and died without operation. The other six recovered. Of the remaining five cases, one presented curettings that were typical of choriocarcinoma but recovered with no other operative interference. Two cases were typical syncytiomata, and two were atypical and are classified as syncytial hypertrophy.

Gastric Lavage in Treatment of Eclampsia.—For the purpose of inducing perspiration Davidson passes the stomach tube every four hours, leaving from 1 to 1½ liters of water in the stomach. Regurgitation and aspiration need not be feared. The water may be introduced fairly rapidly and the tube quickly removed if regurgitation reaching intervenes. That the stomach empties itself is established by the fact that in no instance has Davidson ever recovered any portion of the water introduced four hours previously, although he has often left in well over 1½ liters. Fluids introduced through the stomach are excreted by the kidneys more rapidly than if introduced into the rectum, into the tissues by hypodermoclysis, or even intravenously. Epsom salts, in 1 or 1½ ounce dose should be given once or twice in the twenty-four hours, and some alkali, as 20 grains potassium acetate and citrate mixture, each time the tube is passed. The bowels usually move copiously without the use of more drastic catharsis. Initial control of the convulsions by doses of morphin hypodermatically, spinal puncture if the eyegrounds indicate it, combating flatulence by means of eserin, pituitary extract, hot stupes and enemas, and cardiac stimulation should not be neglected. Davidson urges that in severe cases at least three gavages be performed after the patient is considered well out of the critical state, to insure against recurrence of convulsions and consequent disappointment as to the value of the procedure.

U. S. Naval Medical Bulletin, Washington, D. C.

April, 1921, 5, No. 2

Good Old Days. P. J. Waldner.—p. 7.
Miscellaneous Notes for New Hospital Corpsmen, Especially Those Serving at Naval Training Stations. W. H. MacWilliams.—p. 11.
Botulism and Ripe Olive. P. V. Tuttle.—p. 16.
Suggestions for Dispensing. E. L. Wilhite.—p. 21.
Alchemy. E. L. Sleeth.—p. 26.
Commissary Work. H. L. Gall.—p. 30.
From Great Lakes to West Coast with Recruits. W. T. Minnick.—p. 34.
"Dont's" in Pharmacy and a Talk on Dispensary Practice. L. W. Rider.—p. 35.
Trip to West Indies. J. C. Gill.—p. 43.
Ready-Reference Card System in Use at United States Naval Hospital, Pensacola, Fla. L. Nottingham.—p. 48.
Civilian Pay Roll at Naval Hospitals. S. Wierzbick.—p. 56.
Care of Syphilitic Health Records. B. E. Kirwan.—p. 58.
Examination for Pharmacist's Mate, First Class, and Chief Pharmacist's Mate. N. L. Saunders.—p. 59.
Drugs and Chemicals of Naval Medical Supply Table. F. H. Stewart.—p. 64.
Simple and Efficient Guinea-Pig Holder. C. H. McDougald.—p. 79.
Handy Container for Sterilizing Glass Syringes. C. H. McDougald.—p. 79.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Single case reports and trials of new drugs are usually omitted.

British Medical Journal, London

May 7, 1921, 1, No. 3149

*Early Diagnosis of Acute Abdominal Affections. W. M. Eccles.—p. 663.
Injuries to Female Ureter. A. I. Robinson.—p. 665.
Axis of Astigmatism. N. B. Harman.—p. 666.
*Lymphadenoma. G. J. Langley.—p. 667.
Physiologic Cost of Muscular Work Measured by Exhalation of Carbon Dioxid. A. D. Waller and G. De Decker.—p. 669.
*Intermittent Albuminuria in Children. F. Moor.—p. 671.

Acute Abdominal Infections.—Eccles considers it a matter of congratulation that while the causes of an "acute abdomen" are not apparently on the wane, the gravity of the condition is becoming more and more recognized, and its early diagnosis, which is a matter of supreme value, arrived at in a larger number of instances.

Lymphadenoma.—The interest in Langley's case lies in the difficulty of clinical diagnosis. The growths in the skin suggested at once that the case was not one of lymphadenoma but of lymphosarcoma. The absence of any marked splenic enlargement and the type of fever, which did not conform to the Pel-Ebstein sequence, strengthened the view of its malignant nature. On the other hand, the blood picture and the quite remarkable response to roentgen-ray treatment strongly suggested lymphadenoma. The appeal to histologic inquiry—the only possible method of arriving at a conclusion quickly settled the nature of the disease. The blood picture corresponded in some measure with the findings of Bunting in lymphadenoma cases, in that it showed a fall in lymphocyte and eosinophil count with a rise in polynuclears as the disease progressed.

Intermittent Albuminuria in Children.—Moor claims that intermittent albuminuria is a common condition among children but is not a form of kidney disease. It is a symptom of several diseases.

May 14, 1921, 1, No 3150

*Prevention and Treatment of Puerperal Infections. W. B. Bell.—p. 693.
Use of Peptone in Asthma and Its Congeners. A. G. Auld.—p. 696.
*Diagnosis and Treatment of Gastroptosis. J. F. Hall-Edwards.—p. 698.
Eclipse Blindness. W. O. Lodge.—p. 701.
*Treatment of Urethral Stricture. P. L. Giuseppi.—p. 702.
*Two Unusual Cases of Abdominal Tuberculosis. E. G. Slesinger.—p. 703.
Pain in Paroxysmal Auricular Fibrillation. E. E. Laslett.—p. 703.
Glandular Fever. J. Leask.—p. 703.
Eight Successive Breech Presentations in Same Patient. J. R. Hall.—p. 704.

Puerperal Infections.—Bell states that there must be an honest recognition by all who attend childbirth that puerperal infection is almost always avoidable, and that the appearance of it any case that has been examined, or in which interference has been practiced, is a serious reflection on the accoucheur or accoucheuse. If the whole profession would combine in an attempt to reduce the present incriminating figures, a great change would be noticeable, not only in the statistics, but also in the health of the female population. The remedy does not lie in better teaching, so far as practitioners are concerned, but in obedience to the dictates of conscience. No man can plead ignorance of asepsis and antisepsis today. The trouble is that imperfect asepsis is practiced as a sop to conscience instead of complete asepsis as a real scientific safeguard. Examination per rectum with the gloved finger should be practiced in the case of the parturient woman in preference to vaginal examination. Forceps delivery is far too common. Most women deliver themselves safely if left alone. Forceps de livery, when necessary, is a surgical operation, and should not be conducted in insanitary surroundings. All lacerations, not only those of the perineum, must be sutured efficiently. Care must be taken to maintain the natural defences of the patient. With regard to the treatment of puerperal infection, Bell urges that the evacuation of large pieces of placenta and efficient antiseptic irrigation of the uterus should be practiced in the early stages of infection of the placental site. All infected lacerations should be cleansed. The employment of autogenous vaccines and polyvalent serums is often useful in cases of generalized infection. Major

operations must be performed, especially ligation of the veins in puerperal thrombophlebitis, without hesitation and in good time when indicated.

Gastroptosis.—In addition to diet, hygiene, massage and electrical treatment Edwards uses a supporting belt for gastroptosis. This belt is so constructed that its upper part allows of free expansion of the abdomen, whilst the lower part and pad are fixed. The pad, which is kidney-shaped and backed by a metal plate, fits the lower part of the abdomen above the pubes. Pressure is applied to the pad by a transverse spring, the spring being brought into action by webbing straps which pass from the back of the belt horizontally. The belt is supplied with elastic sides, and is made to lace up at the back.

Urethral Stricture.—Unless a stricture can easily be dilated with sounds, or unless it is impermeable or does not allow of the passage of a No. 1 (English), catheter or sound Giuseppi believes that the correct treatment is internal urethrotomy. If the case is one in which this operation is indicated, the internal urethrotome is passed into the urethra after the usual antiseptic precautions have been taken, and gas and oxygen are administered; the knife is then uncovered and the instrument withdrawn, and a number of previously oiled sounds passed into the bladder until a No. 20 or 24 is passed. Giuseppi has performed twenty-five operations of this nature, and has not had a single recurrence.

Abdominal Tuberculosis.—In the case of an infant, aged 5 months, a probable diagnosis of pneumococcal peritonitis was made. On opening the adomen a large quantity of purulent fluid and intestinal contents escaped, and a loop of intestine, showing a perforation, presented. The greater part of the pus came from a mass which could be felt in the abdomen, and this on further exploration proved to be a mesenteric abscess, from which several ounces of pus were evacuated. The child died. In the second case, a male, aged 34, gave a history of pain in the left iliac fossa for three weeks, the pain being also referred to both lumbar regions. He was admitted to hospital as a case of subacute intestinal obstruction. Over the left iliac fossa, a tumor of somewhat vague contour, but of firm consistence, could be palpated. Laparotomy was performed, and the tumor explored. The appendix was attached by its tip to the tumor and was secondarily somewhat inflamed, and consequently removed. A well formed Meckel's diverticulum was separated from the loops of bowel bounding the mass, but was normal. The mesentery of the small intestine was very thick and short, the bowel being bound down almost to the posterior abdominal wall; on separating the loops, about a pint of fecal-smelling pus was evacuated. The cavity was bounded by mesentery and bowel, and from one wall half of a semicalcareous gland was removed. The abscess cavity was drained, and the patient made an uninterrupted recovery.

China Medical Journal, Shanghai

March, 1921, **35**, No. 2

Hyperplasia of Nerve Centers. S. R. Detwiler.—p. 95.
Nitrous Oxid-Oxygen. E. I. McKesson.—p. 107.
Year's Work in an Eye Clinic. W. S. T. Neville.—p. 128.
True Efficiency in Mission Hospitals. D. M. Gibson.—p. 139.
Simple Detection and Qualitative Tests for Morphin, Its Compounds and Derivatives. B. E. Read.—p. 141.
Obstetrics and Gynecology in South China. J. P. Maxwell.—p. 146.
Ovarian Cyst of Unusual Dimensions Successfully Removed. L. F. Heimburger and E. M. Ewers.—p. 154.

Edinburgh Medical Journal

May, 1921, **26**, No. 5

Treatment by Roentgen Ray and Radium. R. Knox.—p. 273.
Pneumococcus and Streptococcus Groups in Their Relation to Influenza. W. R. Logan.—p. 294.
Where Do We Stand in Preventive Medicine? W. Robertson.—p. 313.

Journal of State Medicine, London

April, 1921, **29**, No. 4

Newer Developments in Industrial Welfare. A. M. Anderson.—p. 97.
Employment and Distribution of Industries in Their Relation to Growth and Physical Development of Young Wage Earner. H. J. Wilson.—p. 108.
Place of Industrial Medicine in Medical Science. F. Shufflebotham.—p. 117.
Health Conditions at Broken Hill Mines. M. Birks.—p. 121.

Lancet, London

May 7, 1921, **1**, No. 5097

*Glycemia and Glycosuria. G. Graham.—p. 951.
*Simple Quantitative Serum Reaction for Diagnosis of Syphilis. G. Dreyer and H. K. Ward.—p. 956.
*Report on First Year's Work of Clinic for Syphilitic Children. R. C. Jewesbury.—p. 962.
*Similarity of Effects Produced by Absence of Vitamins and by Exposure to Roentgen Rays and Radium. W. Cramer, A. H. Drew and J. C. Mottram.—p. 963.
*Artificial Respiration in New-Born. W. O. Greenwood.—p. 964.
Case of Acetanilid Poisoning; Recovery. H. El Arculli.—p. 965.
Case of Aberrant Herpes. G. de Bec Turtle.—p. 965.

Glycemia and Glycosuria.—In his first Goulstonian lecture Graham considers the fate of the sugar in the blood.

Quantitative Serum Reaction for Diagnosis of Syphilis.—Dreyer and Ward describe a new complement fixation test for syphilis which they claim is far more dependable than the Wassermann test. They have given it the name Σ (sigma) reaction. Use is made of two standardized saline suspensions of different concentrations made from a mixture of alcoholic heart extract and cholesterin and the readings are expressed in terms of standard flocculation units. The Σ reaction gave positive results in 18 per cent. more cases than the Wassermann reaction in a series of tests. It only failed in five cases to reveal the presence of syphilis, while the Wassermann reaction failed in fifty-nine cases. In the case of cerebrospinal fluids the Wassermann reaction is as delicate as the Σ reaction. This, no doubt, because more cerebrospinal fluid than serum is employed in the Wassermann reaction. In the case of serum, however, the Wassermann reaction has proved less sensitive. A treated case of syphilis will sometimes continue to give a positive reaction after the Wassermann reaction has become negative.

Clinic for Syphilitic Children.—This report comes from the special clinic in the children's department of St. Thomas' Hospital, London, for children suffering from syphilitic infection.

Effect of Lack of Vitamins on Lymphoid Tissue.—One tissue which is specifically and profoundly affected by the absence of vitamins from the diet is the lymphoid tissue. It becomes greatly atrophied. This condition of the lymphoid tissue is practically identical with that produced by exposure to roentgen rays and radium. Why two such apparently dissimilar causes should produce the same effects is a problem which the authors propose to investigate further.

Artificial Respiration in New-Born.—A method of artificial respiration is described by Greenwood which he claims is proved more certain and effective than any of the methods now in vogue. The infants should be held so that the back of its neck lies on the palmar surface of the operator's left hand, the occiput being supported in the hollow between the thumb and forefinger, the thumb and fingers grasp the mastoids. The right hand holds both ankles firmly from behind, so that the ulnar side is at the calves, the radial side at the ankles. The infant is held nearly vertical, say at an angle of 15 degrees, and is then allowed to move quickly by its own weight downward, feet first, about 2 feet. The abdominal viscera move down, the diaphragm is depressed and inspiration is at once initiated. The infant is now lifted, feet first, upward and to the right of the operator and is therefore head downward at an angle of 15 degrees to the vertical. It is then moved quickly downward, head first, about 2 feet. The abdominal contents fall against the diaphragm which is now pushed upward (relatively to the child) and fully arched, and expiration is completed. The series of movements should be repeated about fifteen times a minute and the first attempt will often elicit a sigh if not a more pronounced response.

May 14, 1921, **1**, No. 5098

*Glycemia and Glycosuria. G. Graham.—p. 1003.
*Prevention of Urinary Obstruction After Prostatectomy. J. W. T. Walker.—p. 1008.
*Endothelioma. E. H. Kettle and J. M. Ross.—p. 1012.
*Relation of Liver to Difference Value of Blood. P. J. Cammidge, J. A. C. Forsyth and H. A. H. Howard.—p. 1017.
*Condition Suggesting Lupus Pernio in a Child. F. P. Weber.—p. 1021.
*New Variety of Ringworm. R. Craik.—p. 1021.

Glycemia and Glycosuria.—In this, the second Goulstonian lecture, Graham speaks of some of the conditions under which sugar is excreted in the urine.

Prevention of Urinary Obstruction After Prostatectomy.—Walker discusses fibrous contraction of the vesical outlet after suprapubic prostatectomy, and describes an open operation for its prevention. The operation consists in first enucleating the prostate and then in freely exposing the bladder base and prostato-vesical opening by means of the Trendelenburg position and special retractors. Any fold or flap that might cause obstruction is then removed.

Endothelioma.—A large number of vascular tumors have been examined by Kettle and Ross in the attempt to distinguish and define the characteristic features of the neoplastic endothelial cell and so place the diagnosis of endothelioma on a more secure basis. They have found that in tumors which can be recognized as of endothelial origin the cells invariably revert to the primitive vasoformative type, and that this reversion is adequate to explain the structure and growth of these neoplasms. They suggest that the mere relation of tumor cells to blood vessels or to circulating blood is not conclusie evidence of an endotheliomatous origin, and that there is no evidence that the cells of an endothelioma can so closely resemble those of a carcinoma as to give rise to confusion. It is possible that this polymorphism can occur, for under certain conditions endothelial cells, especially those of serous membranes, can assume a cubical or even columnar form, but it has not been observed in any of the endothelioma's which were examined. On the other hand, the more atypical endothelioma progresses gradually to a type of growth which is indistinguishable from a spindle-celled sarcoma. But in these, as in the hypothetical carcinomatous forms, differentiation is entirely lost, so that it is no longer possible to distinguish their endothelial origin, and there is no justication for including them among the endothelioma's This name should therefore be kept for tumors which reveal in their structure definite evidence of having originated from endothelium.

Difference Value of Blood.—According to Cammidge and his associates the difference value of the blood, estimated at hourly intervals before and after a test meal, follows an abnormal course in conditions in which the functions of the liver are interfered with. This "hepatic" curve differs markedly from the type of curve associated with other pancreatic affections and bears no constant relation to the sugar content of the blood. The increase in the difference value of the blood following a meal in disease of the liver is chiefly due to hydrolysable carbohydrate, probably of a dextrin-like nature, absorbed from the alimentary tract, which is permitted to pass through the liver into the peripheral circulation instead of being retained as it is normally. Dextrin-like bodies derived from the glycogen store of the liver may be a contributory factor in the production of the raised difference value under certain circumstances. Destructive changes in the hepatic parenchyma are associated with a diminution of the amylolytic ferment content of the blood, thus tending to confirm the conclusion that the liver is the main source of that ferment.

Lupus Pernio in Child.—Weber's patient, a boy, aged 2½ years, showed a remarkable condition of his face, hands and feet. This condition, in regard to the hands and feet, might almost be termed "acrodermatitis chronica mutilans."

New Variety of Ringworm.—Craik's patient had a skin eruption on her thigh. It began as a small red point which was thought to be a bite, and in two weeks reached the size of a shilling and was quite suggestive of ringworm. Fine scales showed plenty of mycelium. The source of infection remained unknown. Treatment was soon successful. Seeded on wort agar fine particles gave good growths. At first grey and semitransparent, after the sixth day, at room temperature, a white floury center appeared and spread over most of the culture. In plate cultures this center, under a low power, was a forest of upstanding, large, rough, multiseptate spindles; and the peripheral zone showed matted mycelium with a smooth surface on which were a few scattered small spindles and a few simple, attenuated, sterile, aerial hyphae. Under a higher power (one-sixth inch) a slide preparation showed pyriform swelling at the septa in several hyphae; many large spindles were seen to have from 6 to 9 septums and thick walls conspicuously rough on the outside. The organism microsporns audouini var. canis Craik says it deserves the name var. macrosporium.

Medical Journal of South Africa, Johannesburg

January, 1921, **16**, No. 6

Some Ethical Points in Regard to Medical Inspection of Schools. C. L. Leipoldt.—p. 104.
Blood Testing Preliminary to Transfusion; Group Distribution Among South African Natives. J. H. H. Pirie.—p. 109.

Practitioner, London

May, 1921, **106**, No. 5

Surgical Treatment of Neuralgia. W. Thorburn.—p. 305.
Plaintiff; a Psychologic Study. J. Collie.—p. 318.
Rodent Ulcer: Treatment by Roentgen Rays and Allied Measures. F. Hernaman-Johnson.—p. 333.
Dried Milk as a Food for Infants. R. J. Blackham.—p. 342.
Diagnosis and Treatment of Cancer of Larynx. F. H. Diggle.—p. 347.
Recent Public Health Work. J. Priestley.—p. 356.
Makeshifts in Practice. J. G. Wathins.—p. 371.
Tracheal Diphtheria. T. A. Lawder.—p. 375.

Annales de Médecine, Paris

February, 1921, **9**, No. 2

*Emotional Factor in Hyperthyroid States. G. Marañon.—p. 81.
*Glycosuria in Neurosyphilis. C. I. Urechia and A. Josephi.—p. 94.
*Specific Antigen in Urine of the Tuberculous. G. Ichok.—p. 97.
*Kidney Lesions in Choleriform Diarrhea. H. Sloboziano.—p. 101.
Otogenous Meningitis. L. Rénon and P. Blamoutier.—p. 119.
The Statie and Kinetic Systems of Motility. J. Ramsay Hunt (New York).—p. 123.
Experimental Cancer to Date. G. Roussy and M. Wolf.—p. 130.

The Emotional Factor in Hyperthyroid States.—Marañon admits that emotional stress is particularly liable to induce hyperthyroidism when there is already a predisposition to excessive thyroid function, but he insists that emotional stress alone may be sufficient to bring on hyperthyroidism even in the normal. Hyperthyroid states are of seven different types besides the classic exophthalmic goiter: the cardiovascular form, the nervous, the consumptive, the digestive, the diabetic and the climacteric, as also simple goiter assuming the exophthalmic type. None of the symptoms are pathognomonic, and in dubious cases he always rejects the assumption of hyperthyroidism unless there are at least three of the main symptoms, including unstable tachycardia, tremor, enlargement of the thyroid, exophthalmos, retraction of the upper eyelid, the patient growing thin, pronounced motor restlessness, emotional instability or sensations of heat with vasomotor irritability, localized especially in the thyroid region. There was a history of intense emotional stress coinciding with the onset of the hyperthyroidism in 28 per cent. of his 159 cases of hyperthyroidism in the last two years. Such a large proportion is not found with any other pathologic condition, and is too large to be explained as a casual coincidence. He gives brief summaries of forty-eight cases. All confirm anew the extreme etiologic importance of prolonged and depressing emotional stress, and the development of exophthalmic goiter at critical periods, especially in women. The glycosuria noted by Cannon and others immediately following emotional stress, and the hyperglycemia noted by Marañon can be explained only by the blood stream's being suddenly flooded with some substance, such as epinephrin, from sudden exaggeration of endocrine functioning. A minute dose of epinephrin injected in a person whose thyroid is known to be functioning to excess induces tremor, pallor, palpitations, goose flesh, chilliness in the back, dilation of the pupil and sometimes lacrimation and voiding of urine—organic phenomena such as may accompany emotional stress. This emotional organic reaction to epinephrin does not occur in the normal, or only with a much larger dose. But it occurs exactly as in hyperthyroidism if the subject has been given large doses of thyroid extract beforehand.

Cerebral Glycosuria with Neurosyphilis.—Urechia and Josephi report from Roumania ten cases out of their total of 100 cases in which glycosuria was found with insidious neurosyphilis. The glycosuria was mild and intermittent but the pupils and lumbar puncture fluid testified to the neurosyphilis, and under specific treatment the glycosuria subsided.

Tuberculosis Antigen in Tuberculous Urine.—Ichok injected healthy rabbits subcutaneously with urine from cases of

advanced pulmonary tuberculosis. The serum of some of the rabbits acquired the property of inducing deviation of complement thereafter.

Kidney Lesions in Choleriform Diarrhea.—The pronounced lesions found by Sloboziano in the kidneys of eight young infants with choleriform diarrhea teach the necessity for sparing the kidneys in all such cases. The salt content of foods and infusions should be reduced, and the edematous condition of the skin warns to be cautious with subcutaneous infusion of even water. Alcohol and lactic acid should be strictly avoided.

Bulletin de l'Académie de Médecine, Paris

April 19, 1921, **85**, No. 16

*Orientation of Medical Students. P. Le Gendre.—p. 474.

Professional Orientation of Medical Students.—Summarized in Paris Letter, page 1509.

April 26, 1921, **85**, No. 17

Influence of Meteorologic Conditions on Spread of Epidemics. A. Trillat.—p. 509.
*Protection Against Radium Rays. H. Bordier.—p. 512.

Dangers of Radium.—Bordier urges surrounding the bed during applications of radium with large screens of thick lead, high enough to protect the head of the attendant. The attendants should have their blood examined every two or three months, and should keep away from radium if the number of erythrocytes begins to drop.

Bulletins de la Société Médicale des Hôpitaux, Paris

April 22, 1921, **45**, No. 13

The Schick Reaction in Diphtheria. J. Renault.—p. 529.
Serotherapy of Gonococcus Joint Disease. Oettinger and Deguingand.—p. 532. Idem. A. Sézary.—p. 535.
*Insufficiency of Liver and Kidneys with Gastric Cancer. P. Le Noir, C. Richet, Jr., and A. Jacquelin.—p. 538.
Medical Treatment of Phlegmonous Angina. G. Railliet.—p. 543.
*Cephalic Tetanus. P. Beaussart.—p. 546.
*Protracted Epidemic Encephalitis. G. Petit.—p. 550.
*A Case of Hysteria. A. Renault.—p. 554.

The Liver and Kidney with Gastric Cancer.—Le Noir and his co-workers recently called attention to the insufficiency of the kidneys and liver in cases of gastric ulcer. They found the same, only in much less degree, in 41 per cent. of seventeen cases of gastric cancer. This is a much smaller proportion than with ulcer.

Cephalic Tetanus.—The symptoms of recurring tetanus developed fifty-five days after the close of a first attack of cephalic tetanus. This recrudescence assumed the paralytic type, without contracture, and there was a confusional state suggesting cerebral tetanus. No serotherapy had been given after the subsidence of the first attack.

Protracted Epidemic Encephalitis.—In Petit's three cases of protracted epidemic encephalitis, the two young women and one young man had presented various psychopathic syndromes for over a year, either continuous or with intermissions (acute delirium, mental confusion, hallucinations, extreme dread, morbid impulses and phobias, etc.). The transient appearance of organic disturbance suggesting epidemic encephalitis first explained the cause of this prolonged mental disturbance. Such cases emphasize the importance of seeking for the toxi-infectious condition underlying certain psychopathic manifestations.

Case of Hysteria.—Renault's patient developed symptoms of ileus, cystitis and desquamating urticaria at the age of 62 under the influence of worry on account of a small hernia which she feared was becoming uncontrollable. She presented hysteric fever at the same time, and sudden huge edema in the legs and hand, but all these hysteric phenomena disappeared in a few months.

Gynécologie et Obstétrique, Paris

May, 1921, **3**, No. 5

*Experimental Placentation. E. Retterer and S. Voronoff.—p. 305.
*Genital Prolapse. H. Hartmann.—p. 327.
*Eventration after Pfannenstiel Incision. M. Patel.—p. 344.
*Perineal Hysterectomy. H. Hartmann.—p. 350.

Evolution of Maternal Placenta.—Retterer and Voronoff relate that an ovary grafted inside the uterus of a castrated goat or sheep induces the formation of a maternal placenta before the ovary becomes entirely degenerated. Their photomicrograms show the various stages of the process.

Genital Prolapse.—Hartmann reconstructs the floor of the pelvis by suturing the levator ani muscles together through a transverse incision at the fourchet. The stretched wall of the vagina is then resected, with perineorrhaphy. Another method which renders good service for elderly women is to freshen a long and wide strip of the mucosa in both the anterior and posterior walls of the vagina, and suture together these coaptated raw surfaces. This forms a solid median septum with a free passage on each side. Ten illustrations show the various technics.

Eventration After Pfannenstiel Incision.—Patel has had eventration follow in two of his 700 laparotomies with the Pfannenstiel incision. Even when eventration does occur with this technic, it is comparatively insignificant and easily corrected.

Perineal Hysterectomy.—Eight illustrations accompany this description of and comment on this method of removing the uterus through a curving incision between the fourchet and the anus. A description of the technic was recently summarized in THE JOURNAL, April 30, 1921, p. 1283.

Journal de Chirurgie, Paris

May, 1921, **17**, No. 5

*Fracture of Neck of Femur in the Young. R. Bloch.—p. 417.
*Allergic Phlegmons. G. Bouché and A. Hustin.—p. 435.
*Anesthesia in Surgery of the Stomach. M. Roussiel.—p. 449.

Fracture of Neck of Femur in the Young.—Bloch emphasizes that actual fracture occurs only exceptionally and only with a violent trauma in children and adolescents, and it renders the use of the limb impossible. Under other circumstances, the supposed fracture is a rachitic coxa vara. With true fracture, the reclining subject is unable to lift his heel from the plane of the bed. This is a constant sign of fracture of the neck of the femur in young or old, even when the subject is able to take a few steps on the fractured bone. Fracture of the neck or separation of the epiphysis in a child, well reduced, heals in six or eight weeks, but the weight of the body must not be borne on that leg for four months at least. There is no deformity left when properly treated with immobilization in abduction.

Allergic Phlegmons.—Bouché and Hustin explain how a preexisting proteic intoxication may modify the course of an ordinary infectious process by the influence of the allergy, and how treatment should include measures against this intoxication, in addition, perhaps, to the ordinary measures. In some cases described the same micro-organism was responsible in all, but the soil differed owing to the allergy from horse serum, from extravasated blood corpuscles, from the syphilis spirochetes, or a constitutional diathesis, and the symptoms and course varied in consequence. A tendency to a chronic course was particularly evident. Treatment should vary with each case, aiming to restore the soil to normal. The soil once "blanched," the ordinary measures then regain their action on the infectious agents or the latter fall an easy prey to the phagocytes. Among the examples cited is the case of a young woman, sensitized to horse serum, who developed an abscess which progressed for a month but then healed in thirty-six hours after another injection of 1 c.c. of horse serum. In three patients an abscess developed at the point where there had been great extravasation of blood from trauma. The patients' own blood, hemolyzed, was reinjected, assuming this to be the sensitizing antigen, and the prompt cure of the progressive infectious process confirmed the correctness of this assumption. In two other cases, instead of the patients' own hemolyzed blood, crotalin was used, and with excellent results, although less prompt and less pronounced than with the autoblood injections.

Anesthetics for Operations on the Stomach.—Roussiel blocks the splanchnic nerves at the eleventh or twelfth dorsal nerves, supplementing this with local anesthesia of the anterior abdominal wall. His illustrations show the technic he has applied in this way in nine pylorectomies for cancer and in thirty-one gastro-enterostomy cases, without a drawback.

Journal de Médecine de Bordeaux

April 10, 1921, **98**, No. 7

Inaugural Lecture on Zoology and Parasitology. Mandoul.—p. 183.
Adjustable Continuous Extension for Children. C. Lasserre.—p. 189.
Modern Treatment of Purulent Pleurisy. Villar and Jeanneney.—p. 191.
Vaccine Therapy of Vaginal Infections. Villar and Jeanneney.—p. 192.

Journal de Radiologie et d'Electrologie, Paris

March, 1921, **5**, No. 3

Electrotherapy in Motor Neuritis. Delherm and Laquerrière.—p. 97.
*Radiotherapy in Interstitial Keratitis. Japiot and Bussy.—p. 106.
Tracheobronchial Glandular Disease. J. Laborderie.—p. 113.
Fracture of the Scapula. L. Moreau.—p. 121.
Roentgen Findings after Duodenopylorectomy. Grimault and Colanéri.—p. 125.
To Estimate Radiographic Contrasts. Ducci and Kaplan.—p. 127.

Radiotherapy Cures Interstitial Keratitis.—For more than a year Japiot and Bussy have been treating keratitis with weak doses of penetrating roentgen rays, with a 3 mm. aluminum filter. No protecting devices are necessary with these small doses of ½ H. at a five-minute sitting. The total exposure was about 1½ H., at weekly intervals. The effect is more rapid the earlier the stage and the younger the child. In two typical cases reported, the keratitis in the children of 7 and 9 was the work of inherited syphilis, and the cure was soon complete. They are convinced that the roentgen rays are comparatively harmless for the eye, no injury of the eyes having been reported even from the earliest days of roentgen work when the pioneers constantly exposed their eyes without protection. The possibility of danger is of course greater with children. These weak doses do not destroy the cells but probably mobilize them, and the pain and photophobia are relieved almost at once. The children do not object to this method of treatment, and the cornea clears up better than with any other treatment yet known, so that this virgin field is very promising.

Journal d'Urologie, Paris

February, 1921, **11**, No. 2

Polyvalent Antigonococcus Serotherapy. E. Stérian.—p. 81.
*Secondary Infection of the Urethra. A. Lavenant.—p. 109.
*Catheterization of Ureters Through Open Bladder. L. Phélip.—p. 135.

Secondary Infection of the Urethra.—Lavenant found saprophytes in the urethra of 20 healthy men, but in 4 cases of primary urethritis he found the enterococcus, as also in 3 other men who had had gonorrhea at one time, and in a group of 5 similar cases reported by Dreyer. In 4 other cases he found the enterococcus in the course of gonorrhea, and Dreyer has reported 6 similar cases. The clinical picture does not seem to be modified by this mixed infection, except that the urethritis drags interminably. The enterococcus seems to grow more virulent in the presence of another infectious agent, and this virulence persists after the other infection has subsided.

Catheterization of the Ureters Through Open Bladder.—Phélip comments on the advantages of making the minute incision for this purpose close to the urethra. This best exposes the mouths of the ureters to view.

Paris Médical

April 30, 1921, **11**, No. 18

The Teaching of Pediatrics. A. B. Marfan.—p. 337.
*Epidemic Encephalitis. G. Turrettini and G. Piotrowski.—p. 348.

Protracted Epidemic Encephalitis.—Turrettini and Piotrowski report a case of acute epidemic encephalitis in a young woman which has persisted for nine months and is only slowly subsiding now. Economo has reported a case with a two year chronic course but in this, and in three others on record, the later symptoms seemed to be more sequelae of the disease, while in the case here illustrated the primary clinical picture, somnolency, contracture, trismus, tremor and fever have persisted, with only slight fluctuations, during the months to date.

Presse Médicale, Paris

March 30, 1921, **29**, No. 26

*Posterior Gastro-Enterostomy. R. Toupet.—p. 253.
Acidosis in Surgery. A. Aimes.—p. 254.

Posterior Gastro-Enterostomy.—Toupet urges the superiority of the transmesocolic or supramesocolic technic. One of its advantages is that the transverse colon does not have to be outside of the abdomen during the whole operation. The illustrations show the ease with which the posterior aspect of the stomach is exposed.

Acidosis from Surgical Standpoint.—Aimes recalls that, aside from the acidosis of diabetes, we must reckon with acidosis in all conditions of undernourishment leading to inanition and autophagia, such as cancer of the digestive tract, and obstruction of the bowel or pylorus. Liver disease is also liable to entail acidosis, as in Labbé's case of fatal coma from an abscess in the liver. Acetonuria is frequent in fevers, and acidosis in traumatic shock, although it is not the cause of shock. Among the factors of postoperative shock are the preliminary fasting, the injury of the liver from the anesthetic, the fatigue, emotions, effect of strychnin or caffein, and the shock from the operation. Acidosis is most frequently observed after operations on the digestive tract and thyroid, and in hemorrhagic diseases. Blum advises giving sodium bicarbonate until the urine gives the alkaline reaction with litmus. From 5 to 10 gm. of the bicarbonate will accomplish this in the absence of acidosis, while from 20 to 50 gm. may be necessary with acidosis. Before the operation, ketogenous foods should be avoided, and glucose and alkalines given, and camphor and oxygen should be preferred to strychnin and caffein for stimulants.

April 20, 1921, **29**, No. 32

Pathologic Anatomy of Lung and Tracheobronchial Glands in Children. H. Méry and L. Girard.—p. 313.
*Eosinophil Leukemia? C. Aubertin and L. Giroux.—p. 314.
Spinal Anesthesia. R. Bloch.—p. 316.

Eosinophil Leukemia?—Aubertin and Giroux report a case which closely resembles those recently described by Stillmann and by Giffin. In all three the eosinophils form from 85 to 91 per cent. of the leukocytes, and in all the spleen is enlarged. Chronic dyspnea and other signs of heart disease point to the heart as the seat of the primary disturbance. The condition does not seem to be dangerous, the patients showing no symptoms except those from their heart disease.

April 23, 1921, **29**, No. 33

*Correction of Unilateral Harelip. V. Veau and C. Ruppe.—p. 321.
*Present Status of Botulism. P. L. Marie.—p. 324.

Unilateral Harelip.—The twenty-four illustrations given by Veau and Ruppe show the various drawbacks of different technics, and means to insure cosmetic healing with different types of the deformity. The Jalaguier method seems to be preferable, and can be applied even after failure of most other measures. In one case described, good results were obtained with it after four operations during the first few months of life had left disfigurement. They reiterate that it is always possible and even an easy matter to correct this deformity.

Botulism.—Marie concludes his study of the present status of botulism saying that serotherapy has proved its usefulness in experiments on animals, but has been disappointing in clinical cases. Possibly the wrong strain of the bacillus was used. He quotes freely from THE JOURNAL.

April 27, 1921, **29**, No. 34

*Chemistry of the Blood in Cancer. M. Loeper, J. Forestier and J. Tonnet.—p. 333.
Variations in Chlorid Content of the Blood. G. Rodillon.—p. 334.
Examination of Retina in Light Minus Red Rays. A. Cantonnet.—p. 335.

The Blood in Malignant Disease.—Loeper and his collaborators refer in particular to what they call the paradoxic hyperalbuminosis of the blood, found in persons with cancer. It is in marked contrast to the cachexia and the inadequate intake of nourishment. Its intensity usually parallels the size of the tumor, and they explain its mechanism and the import for diagnosis and prognosis of this and other features of the blood in the course of malignant disease.

Progrès Médical, Paris

April 23, 1921, **36**, No. 17

Pneumonia not Modified by Old Tracheotomy. E. Pallasse.—p. 177.
Thyroid Treatment of Furunculosis. E. Savini.—p. 178.
Multiple Gastric Ulcers in Young Man. Potherat.—p. 179.
Operation for Tuberculous Lesions in Chest Wall. Moreau.—p. 181.

Schweizerische medizinische Wochenschrift, Basel

April 28, 1921, 51, No. 17

*Necrosis of Myomas During Pregnancy. H. Guggisberg.—p. 389.
Some Optical Problems in Fitting Glasses. C. A. Hegner.—p. 392.
Blood Findings in Influenza and Encephalitis. Reicher.—p. 394.
*Spastic Contracture of Adductors. H. Debrunner.—p. 402.

Necrosis of Myomas During Pregnancy.—Guggisberg advocates operative measures at once when the necrosis of a myoma is suspected. Sudden development of pains and symptoms of peritonitis with known myomatosis of the uterus calls at once for surgical intervention, but with more chronic onset each case has to be decided for itself. In any event, the necrotic myoma must be removed at once after delivery. In Ihm's 18 cases in which he enucleated the myoma during gestation, the pregnancy proceeded to term in 14, but 3 of the women aborted. In Guggisberg's 7 cases all the women recovered, but in 71 cases he has compiled, there were 6 deaths. Simple myoma never calls for operative measures during the pregnancy. But in 16 cases on his service some complication compelled intervention, and in every instance the gravid uterus with its myoma was amputated above the vagina; all the women recovered.

Spastic Adductor Contracture.—Debrunner has applied Selig's operation in a case of this kind with excellent results. The nerve is resected from within the pelvis. He describes the technic in detail, and comments on its harmlessness and on the necessity and the technic for after-care. His experience has confirmed the importance of training the muscles after any such operation; the latter merely provides the soil on which the training of the muscles takes root and bears fruit. The nerve can be merely weakened if desired, and this principle deserves wide application. He describes the special measures required for the different groups of spastic contraction, according as the spasm or the shriveling predominates. [Others are reporting similar striking success with this intrapelvic extraperitoneal resection of the obturator nerve.]

Policlinico, Rome

April 1, 1921, 28, Medical Section No. 4

*Myoclonus. G. Pilotti.—p. 137.
Mechanical Influence of Skull on Brain. Pedrazzini.—p. 174. Cont'd.

Myoclonus.—Pilotti describes the clinical course and the necropsy findings in a case of what he calls polymyoclonus in a woman of 37, comparing it with the literature. The clonic spasms could be brought on even by blowing on the skin.

Riforma Medica, Naples

April 16, 1921, 37, No. 16

Urease Test for Urea in Urine. G. L. Malerba.—p. 362.
*Dependence of Vasomotor Phenomena in Respiratory Passages on the Vasodilatation in the Skin. A. Azzi.—p. 363.
Deep Lymphoma in the Neck. C. Bruzzone.—p. 364.
*Slight Fever from Inflammatory Tumor. C. Cantieri.—p. 367.
*Enterostomy in Treatment of Peritonitis. E. Aievoli.—p. 369.

Parallel Vasomotor Phenomena in Skin and Air Passages.—Azzi's experiments confirmed the change in temperature of the tonsils and palate and of the expired air simultaneous with the hyperemia induced on the skin by a mustard plaster. When the mustard induced much smarting, the temperature in the air passages sometimes dropped instead of rising, but it rose after cessation of the irritation of the skin. His findings supply a scientific basis for the empiric treatment by revulsion to the skin.

Slight Fever from Inflammatory Tumor.—Cantieri calls attention to the slight fever which he noted in connection with the small tumors which developed after injections of camphorated oil. The slight rise in temperature preceded and accompanied the menstrual periods, and the region where the injections had been made swelled and reddened. When the patient was first seen, the slight fever had returned for ten months. In some cases of the kind on record, the oil infiltration had to be cut out as fluid petrolatum had been used, but even vegetable oils may induce this tumefaction and transient fever.

Enterostomy in Treatment of Peritonitis.—Aievoli has compiled twenty-two cases from the literature. The enterostomy seemed to be the decisive factor in the recovery in twelve cases. The cone of intestine is drawn up and the base is sutured to the skin and a thread is run around the cone about 2 cm. from the tip. A catheter is then worked into a minute opening in the tip and the thread is drawn tight, fastening the tip of the cone to the catheter. The latter is then pushed in as far as desired, thus invaginating the cone and protecting the portion of the intestine fastened to the wall from any contact with the bowel contents. If the enterostomy fails to answer the purpose, another at another point may be justified. By relieving the bowel, secondary peritonitis may subside.

April 23, 1921, 37, No. 17

*Preparation of Suture Material. F. Greco.—p. 386.
Safe Technic for Thoracentesis. V. Sebastiani.—p. 388.
Pathogenesis of Pernicious Malaria. R. Leone.—p. 391.
Periarterial Sympathectomy. E. Aievoli.—p. 393.

The Muscatello Method of Sterilizing Catgut and Silk Suture Material.—Greco expatiates on the numerous advantages of the sterilizing solution which has been used since 1914 in a number of Italian clinics with constantly increasing satisfaction. Catgut thus prepared is elastic and keeps for months unimpaired. The solution is a mixture of 10 gm. metallic iodin; 10 gm. of potassium iodid; 20 gm. of glycerin; 20 gm. of rectified alcohol; 60 gm. of solution of formaldehyd, and 1,000 gm. of distilled and boiled water. Each thread is wound in a single skein, and not more than 100 or 125 of these skeins are placed at one time in the liter glass jar with glass stopper. The catgut is ready for use in eight days. The iodin retards absorption but stimulates the lymphoid tissues, and the catgut is completely absorbed in time.

Revista Médica del Uruguay, Montevideo

March, 1921, 24, No. 3

*Hydatid Cyst of the Lung. Alice Armand Ugón.—p. 121.
*Typhoid at Montevideo. J. Bonaba.—p. 125.
*Cervical Dystocia. J. C. Carlevaro.—p. 132.
*Epidemic Encephalitis in the Pregnant. A. Turenne.—p. 137.

Hydatid Cyst of the Lung.—A boy of 8 had been coughing for six months, with profuse and often fetid expectoration. Then an almost complete hydatid membrane was coughed up, and recovery followed. In a second case the spasmodic cough and blood-stained sputum were explained by the roentgen rays as due to a hydatid cyst opening into the bronchi while a second, small, closed cyst caused no functional disturbance. The rupture and elimination of the cyst in such cases do not seem to be dangerous, the child coughing up in a few seconds the huge cyst, and almost all the cases encountered have been followed by complete recovery. In one case an adult coughed up the cyst a few hours before the planned operation for its removal.

Peculiarities of Typhoid Epidemic.—Bonaba calls attention to the whipping up of latent tuberculosis in certain cases in the recent October epidemic of typhoid at Montevideo. In some children, tuberculous meningitis closed the scene. Another peculiarity of the prevailing epidemic is the frequency of relapses, sometimes after a long interval. In two cases these tardy relapses coincided with infectious rheumatism or purpura.

Cervical Dystocia.—Carlevaro operated by way of the vagina in the case of rigid cervix described, the amniotic fluid having become infected, and urges that the vaginal route is often best with limited infection. "Let us be progressive but let us not forget the old and tried methods."

Epidemic Encephalitis Complicating Pregnancy.—Turenne was unable to find any microscopic lesions in the case of fatal epidemic encephalitis in a quintipara at the seventh month of a pregnancy. Merely slight congestion in the lungs and central nervous system was all that was evident. He compares with this the cases from the literature. In three of the four on record the disease was of the maniacal form, and with neuralgia and myoclonus in two of the four. He cites Garnet's recent case in THE JOURNAL.

Semana Médica, Buenos Aires

March 3, 1921, 28, No. 9

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Inversion of Uterus. F. R. Pasman and R. Mestre.—p. 258.
Anthrax and Its Serotherapy. J. Castilla Mira.—p. 259.

Transient Mental Derangement in Child. M. Helmann.—p. 265.
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March 24, 1921, **28**, No. 12

*Epidemic Poliomyelitis. J. P. Garrahan.—p. 333.
Pylorectomy. J. P. Hemmingsen.—p. 341.
*Beef Antitoxin. R. Kraus, J. Bonorino Cuenca and A. Sordelli.—p. 346.
Splenectomy after Trauma. G. C. Palacios.—p. 349.
Transient Sexual Impotency in Recruits. J. A. López.—p. 350.
The Teaching of Semeiology. G. Aráoz Alfaro.—p. 353.
The Hygienic Uniform. C. Trejo.—p. 355.

Epidemic Poliomyelitis.—This is a chapter of a manual on pediatrics now in press.

Beef Antitoxin.—Kraus and his co-workers have been using cattle instead of horses in production of diphtheria and tetanus antiserums, and report here a large number of children treated with them. In the 49 cases of diphtheria, serum sickness developed in 6 per cent.; there was no instance of serum sickness in the 56 cases in which the antitoxin was given in prophylaxis. In 93 cases, horse antitoxin had been injected on some previous occasion, and serum sickness developed in 5.3 per cent. of these. There were thus 198 cases with 4.54 per cent. serum sickness This seems to be a smaller percentage than would be found in a similar series treated with horse serum, and they thus urge the use of immune serums from cattle as a means of reducing the tendency to serum sickness.

Archiv für Verdauungs-Krankheiten, Berlin

1921, **27**, No. 4-5

*Psychic Gastric Secretion in Man. G. R. Heyer.—p. 227.
*Prophylaxis of Gastric and Duodenal Ulcer. P. Cohnheim.—p. 241.
*A Case of Atypical Gout. E. Weiss and K. Vogelgsang.—p. 265.
*Test for Acidity of the Stomach Content. W. Lanz.—p. 282.
*Fate of Bacteria in the Stomach. Van der Reis.—p. 353.
*Activity of Fasting Stomach. L. Jarno and J. Vándorfy.—p. 364.

Psychic Gastric Secretion in Man.—Heyer shows the different fallacies and misleading conclusions that have been inevitable with the methods in vogue for testing the influence on gastric secretion of mental impressions. It is impossible in man to make a Pawlow small second stomach for study of the "appetite gastric juice," but Heyer has devised a method which apparently answers the same purpose: The subject of the test receives only the desired psychic impressions and these in an intensive form, while all disturbing impressions (pain, dread, discomfort, etc.) are excluded, and the gastric secretion is obtained pure and in quantities. He accomplishes this by applying the test in hypnosis, and using a retention stomach tube with continuous aspiration. The hypnotized subject swallows the stomach tube without the slightest resistance; the end hangs out of his mouth and he lies quietly. Large amounts of gastric juice, sometimes highly acid and with great peptic power were found in most of the subjects when the stomach was supposedly empty, but there was no regularity in these findings. When no further secretion could be aspirated, after waiting five or ten minutes, the idea of a meal was impressed on the patient, the taste and the amounts suggested. He "ate" it with great relish, and this sham feeding lasted for two and a half minutes. In about five minutes, up to ten or fifteen, gastric juice then appeared, and was aspirated at five minute intervals, and examined for amount, acidity and digestive power. The findings were closely like those found by Pawlow with his dogs, the only difference being that with the dog the effect of the sham feeding lasted for several hours, while in man it lasts only for an hour. But the curves for amount and digestive power, in corresponding five minutes for man and one hour periods for the dogs, are remarkably alike. The imaginary meal consisted of bouillon, bread, and milk, and the subjects were always in good health. The findings thus show that the human stomach secretes an "appetite gastric juice," and confirm anew the extreme importance of psychic impressions for the play of the vital phenomena. They confirm further that the suggestion to feed ulcer patients through a duodenal tube is dangerous; the gastric juice, not being neutralized by food in the stomach, and its ferment content not being used up, is sure to damage the mucous membrane. The findings teach that what Pawlow learned from dogs can be applied to man far more extensively than hitherto suspected.

Prophylaxis of Gastric and Duodenal Ulcers.—Cohnheim has been analyzing the 1,086 cases of gastric or duodenal ulcer which formed 7 per cent. of his 15,500 patients in the course of twenty years. He has been impressed with the way in which the disturbances recurred in spring and fall. These are periods of increased afflux of blood to the abdominal and genital organs, and this deranges the circulation more or less. This derangement is felt at points of lesser resistance, especially in superficially healed ulcers in the digestive tract. This exposes them to further autodigestion and recurrence of disturbances. He rejects all the alleged causes for gastric or duodenal ulcer other than autodigestion, but predisposing causes in men are excesses in eating and drinking and smoking, which induce a hyperacid gastritis. In women the predisposing cause is disturbance in the blood supply of the mucous membranes, especially in chlorosis, anemia, and at the menopause. The whole secret is autodigestion of some patch in the mucosa which is suffering from an inadequate blood supply. The vagotonic symptoms with chronic ulcers, he says, are the consequences, not the cause of the ulcer. When there is a tendency to ulcer, he orders the patients to take for four or six weeks, beginning in March and September, an emulsion of oil with atropin, half an hour before eating and, one hour after eating, he gives a level teaspoonful (in a glass of warm water) of a mixture of 20 parts each of sodium sulphate and sodium phosphate with 60 parts sodium bicarbonate. This oil-alkali-belladonna treatment is imperative also, he insists, after gastro-enterostomy to prevent development of peptic ulcers. He has succeeded in this way in warding off recurrence for years in patients subject to ulcer, who were willing to follow directions and avoid excess in eating, drinking and smoking. The oil emulsion is made with one egg yolk stirred into three teaspoonfuls of olive oil, then diluted with a glass of boiled, tepid water. A third of this is taken half an hour before meals; to this are added 15 drops of an atropin solution representing 0.25 mg. per dose. Cohnheim says that he was the first to introduce the oil treatment of ulcer, but he quotes a number of writers who now endorse it.

Atypical Gout.—A case is described in which findings in the lung suggesting tuberculosis were evidently deposits of urates in lung and pleura, and treatment for gout promptly and permanently cured them. The gout in this case, besides affecting the respiratory organs, involved the nervous system and the eyes. Colchicin treatment, with dietetic restrictions seem to have cured the tendency, the woman of 58 having been free from all disturbances during the five and one-half years since.

Determination of the Acidity of the Stomach Content.—Lanz devotes seventy pages to his method of simple colorimetry applied to the stomach content, and interpretation of the findings.

Fate of Bacteria in the Stomach.—Van der Reis reports experiments in which he gave the prodigiosus along with carmin, and was able to cultivate the prodigiosus from the stools. This proved that the bacteria had not been killed in the stomach. In other tests he dipped little cubes of bacon and apple seeds into prodigiosus and staphylococcus cultures, tied threads to them, and had the patient swallow them. The bacteria could be cultivated from these when they were withdrawn one or two hours later. These tests were repeated before, during, and after meals, and the findings in all showed that the hydrochloric acid in the human stomach does not destroy bacteria as promptly or as effectually as has generally been assumed.

Interdigestive Activity of the Human Stomach.—Jarno and Vándorfy report further research which has confirmed that the human stomach does not rest in the periods between digestion. The activity of the fasting digestive tract is rendered manifest when air and fluid provide conditions favorable for rumbling. During the borborygmus the stomach is empty, but it is followed by regurgitation of duodenal content into the stomach. This in turn induces secretion of gastric juice. This mixture of gastric and duodenal juice gradually disappears, and the stomach is empty again before the borborygmus returns. This displays a tendency to periodicity. Jarno's previous study of this subject was summarized in THE JOURNAL, Oct. 16, 1920, p. 1102.

Deutsche medizinische Wochenschrift, Berlin

April 14, 1921, 47, No. 15

*Postoperative Singultus. H. Küttner.—p. 405.
Comparative Testing of Various Tuberculins. W. Dietrich.—p. 406.
*Diagnosis of Kidney Functioning. P. F. Richter.—p. 407.
New Remedies. A. Holste.—p. 411.
*Danger from Mercury plus Arsphenamin Treatment. H. Eicke.—p. 412.
A Seroscope. H. Dold.—p. 413.
Homogenization of Roentgen Rays by Filter as Body-Tissue Equivalent. F. Kirstein.—p. 414.
Focal Distance in Deep Roentgen Therapy. Haupt and Pinoff.—p. 415.
Acute and Subacute Osteomyelitis of Vertebrae. P. G. Plenz.—p. 416.
Prostatectomy. R. Oppenheimer.—p. 417.
Extract of Carrots for Anemia in Infants. M. Fronzig.—p. 419.
Ascpsis in Care of New-Born and Puerperae. H. Kritzler.—p. 420.
The Value of Tuberculosis Sanatoriums. H. Grau.—p. 421.
Rachitis. L. Langstein.—p. 422.

Postoperative Hiccup.—Küttner reports that in the course of fourteen years he has observed twelve serious cases of singultus following operations. In the severest cases the hiccup lasted several days, continuing day and night; in one no less than twelve days. It appears the day of the operation or the following day; usually lasts several hours, then stops suddenly without assignable cause and begins again without evident occasion. It is not affected by the diet, by the position of the patient in or out of bed, nor by his movements; sometimes it seemed that speaking precipitated an attack. Postoperative singultus in the severer cases weakens the patient, and Marion has reported a case in which it was one of the contributory causes of death after prostatectomy. Küttner's cases included seven following abdominal operations; four after operations on the urinary apparatus, and one following amputation of the femur in severe diabetes. The type of anesthesia, general or spinal or local anesthesia, and the position during the operation could not be shown to influence the condition. There was no increase in temperature. It was peculiar, however, that it was confined to men in the main (eleven men to one woman) and mostly to the fifth and sixth decades. As regards therapy, Küttner found himself more or less powerless. Narcotics were of no avail. Neuenahr carbonated mineral water seemed to afford some relief.

Tests of Kidney Functioning.—Richter reviews the whole field of functional tests for the kidneys, and remarks that the proposal to test the kidneys with a kind of test meal of diuretics is worth considering.

Kidney Block Under Combined Mercury and Arsphenamin Treatment.—Eicke refers to Wechselmann's admonition to watch carefully kidney function while giving arsphenamin treatment. The arsphenamin in itself does not cause nephritis, but in the case of kidneys that have been damaged by mercury or infectious disease, arsphenamin administration may be attended by a disturbance of kidney function, which may check secretion and entail more or less serious consequences. Urinalysis has become an integral part of antisyphilitic treatment. The elimination of albumin and casts cannot be taken as the sole measure of kidney function; this depends just as much on the capacity to excrete water and nitrogenous substances, and a disturbance of this capacity by no means of necessity runs parallel with other functions of the kidney. Loewy and Wechselmann have shown that, while it required large, repeated doses of arsphenamin to damage the kidneys in animals, if the animals were first treated with mercuric chlorid, even small doses of arsphenamin, which had no effect on healthy animals, caused severe damage of function, resulting in complete anuria. Eicke recalls another finding of great practical importance; namely, that in spite of badly damaged secretion, albumin-free urine may be excreted. In consequence of these findings mercury was abandoned in the dermatologic department of the Rudolf Virchow Hospital in Berlin in connection with antisyphilitic treatment. Every patient undergoing treatment with arsphenamin had the urine examined for albumin; the twenty-four hour quantity and the specific gravity were also determined. These systematic tests carried out for many years have shown that the combined treatment is not so innocuous as might be supposed from its widespread use. They have furnished evidence that disturbances of secretion in connection with mercurial treatment do not neccessarily result in complete anuria, but that the danger lies in the fact that owing to their relative and temporary character they may escape detection. An injection of arsphenamin at an unfavorable moment may injure the already damaged kidneys to such an extent that they may be rendered unable to eliminate the arsphenamin, with all the evils resulting therefrom.

Deutsche Zeitschrift für Chirurgie, Leipzig

April, 1921, 162, No. 1-2

*Operation for Arthrodesis. E. Lexer.—p. 1.
*Operative Treatment of Hard Gastric Ulcer. Kraske.—p. 13.
*The Vagus Innervation of the Stomach. E. Borchers.—p. 19.
*Military Surgery in Former Wars. Magnus.—p. 29.
*Hypertrophy of the Prostate. A. W. Fischer.—p. 34.
*Treatment of Suppurative Peritonitis. A. Läwen.—p. 38.
*Graduation of Roentgen Ray Doses. H. Holfelder.—p. 44.
*Radium Treatment of Cancer of the Esophagus. E. Suter.—p. 50.
*Rare Disease of Vertebrae. Guleke.—p. 59.
*The Circulation in Varicose Veins. G. Magnus.—p. 71.
*Contracture after Fixation of Muscle. A. W. Meyer.—p. 122.

Operation for Arthrodesis.—Lexer states that he has now a record of seventy operations of this kind done on the ankle by driving a peg through heel and ankle. Repeated roentgen-ray examination for from eight to eleven years in a number has shown the excellent results when the fibula was used for the peg, retaining its periosteum. Without the periosteum, the implant becomes absorbed or fractured. The implant must be large enough to stand the strain, and cicatricial or other impeding tissues must be cleared away to insure good conditions for the circulation around the transplant. He has found that the twelfth week is the most dangerous period, as the tissues in the implant have been loosened by that time while reconstruction has not proceeded far enough to insure stability. When the fibula is removed leaving the shell of periosteum in place, regeneration proceeds rapidly. But even when the periosteum has been removed with the fibula, and the gap in the bone is left unbridged, there is no functional disturbance, the tibia answering all the purposes. With unilateral paralysis he takes the peg for the implant from the sound side, but with bilateral he uses a homoplastic implant with its periosteum. It is important to have the peg fit tight in place, and to keep up the immobilization in the corrected attitude for five months at least.

Hard Gastric Ulcer.—Kraske declares that malignant degeneration of a hard ulcer is extremely rare, and that this should not necessarily call for resection of the stomach any more than we should amputate a leg on account of a simple ulcer. He curets the hard ulcer and cuts around it, to transform it into a fresh wound. Then he sutures the edges of the wound together and sutures the mucous membrane over it. His experience in twenty-two cases of the kind has been extremely favorable. All the patients related that their tormenting pains had been completely cured, and all were dismissed in good condition in three or four weeks except his first patient. In this case he thought that it was necessary to drain, and fatal peritonitis followed. Since then he never drains. All have been permanently cured except two who returned later with new symptoms requiring further intervention.

The Vagus Innervation of the Stomach.—Borchers reports research which failed to substantiate that the vagus has special control of the motor function of the stomach.

Military Surgery in Former Wars.—Magnus shows that the achievements in war surgery during the last few years had all been suggested in the wars of the past, but conditions then had prevented their being fruitfully applied, and they were soon forgotten.

Pathologic Anatomy of Hypertrophy of the Prostate.—Fischer presents evidence that not the prostate but the group of glands around the mouth of the urethra are the source of the proliferation. They are distinct from the prostate proper, and the term hypertrophy of the prostate should be corrected to hyperplasia of the submucosa glands at the internal orifice of the urethra. Atrophy of the prostate may be the first stage of the process; then these peri-urethral glands enlarge as a compensating process. In conclusion he advocates Voelcker's ischiorectal technic for operating in this region as an essential improvement on all other methods. It was described in THE JOURNAL, Feb. 12, 1921, p. 487.

Treatment of Suppurative Peritonitis.—Läwen comments on the advantages of rinsing out the abdominal cavity and of

intravenous drip infusion of saline plus epinephrin. By this means the patient obtains a large amount of fluid in time without flooding the heart at any moment.

Graduation of Roentgen-Ray Doses.—Holfelder recalls the difficulty in obtaining an even supply of the radiant energy through the tumor, as it is stronger at the surface and grows progressively less in the depths. He describes a method which seems to obviate this irregularity, and allow selection of the fields for exposure so that every square centimeter through the whole irradiated zone obtains the same amount of the rays. He accomplishes this by having some colored gelatin sheets, the color graduated from an intense to a light tint, and the sheets shaped like the cone of rays from the tube. He uses them on a card within an outline corresponding to the zone to be treated. Printed triangles, squares and rings are scattered on this card to test the depth of the tint. He lays the gelatin "stencils" overlapping in such a way as to form an even tint throughout, and hide the figures below. When the even tint conceals the triangles, this is the limit of the carcinoma dose. When the squares disappear, this is the limit of the sarcoma dose. The rings must not be hidden at any point. By this means of overlapping "stencils" the dosage throughout the whole area can thus be rendered even, and the directions in which the stencils have to be pointed to realize this, show the points where the cones of the rays have to be applied to the skin, sometimes perpendicularly, sometimes slanting far to one side. Each case is a law to itself. As many of these "field selector" stencils are used as are required to cover the area. For example, a tuberculous hip-joint in one case required three fields for cross-fire, at an angle of 120 degrees to each other; 30 cm. from the joint; each field given 80 per cent. of the erythema dose. The head of the femur in this case was only 2 cm. from the skin, but in another case, in which the soft parts were very thick, the fields had to be entirely different, and the front field allowed only 50 per cent. of the erythema dose.

Radium Treatment of Cancer of the Esophagus.—Suter expresses his surprise that so little has been published on this subject although the results he and others have realized have been so excellent. Three of his six patients have had their earning capacity restored, and exploratory excision shows no further trace of the cancer. The radium applicator is a silver tube 2 cm. long, containing 40 mg. of the radium element; a stout silk thread suspends the tube. The usual exposure is for about eleven hours, about every ninth day or once a month. It is a good plan to use the esophagoscope, but as this makes such demands on the patient, it may be enough to verify the position of the tube by roentgenoscopy. The inevitable cicatricial stenosis later has to be combated by the usual measures.

Rare Vertebral Diseases.—In the first of Guleke's two cases an operation revealed scattered echinococcus disease of the spine. With the correct diagnosis he would have operated two months sooner, but it would not have made any difference in the fatal outcome. Exploratory puncture might have cleared up the diagnosis. In a second case the man of 53 had actinomycosis of several vertebrae, with fistulas. He took potassium iodid in large doses, and the disease ran a very slow course but it proved impossible to excise all the foci. A course of roentgen treatment was given, but the disease still persists although not interfering much with the general health.

The Circulation in Varices.—Magnus describes a hemodromometer with which he was able to determine that in seven of nine cases the blood in the varicose saphenous veins flows toward the heart only when the subject reclines. When he stands erect or even lies slanting, the blood flows toward the periphery. This surprising reversal of the flow explains many of the features of varicose veins, especially the absence of embolism from thrombosis in varicose veins; the stagnation of the blood at the lower part, with consequent ulceration, and the inability of such leg ulcers to heal. The blood not getting to the lungs to be cleansed is liable to have a toxic action, and aggravate the morbid condition in the leg ulcer. He reviews ninety-one articles on varices. His tests further show that in each clump of varicose veins there is always one vertical vein which runs a straight course and is free from varicose enlargement, its valves being still capable.

Muscular Contracture Under Immobilizing Bandage.—Meyer gives an illustrated description of his experiments on frogs with and without injury of the plexus.

Jahrbuch für Kinderheilkunde, Berlin

1921, **94**, No. 4-5

*Toxicosis in Infants. E. Moro.—p. 217.
Pseudojaundice in Infants and Small Children from Food Rich in Carotin. P. Ryhiner.—p. 225.
*Pylorus Spasm in Infants. Z. von Bókay.—p. 233.
*Intestinal Fermentation in Infants. I. E. Freudenberg and O. Heller. —p. 251.
*The Paradoxic Diphtheria Reaction. H. Opitz.—p. 258.
*Swelling of Muscle after Death. E. Schiff and E. Stransky.—p. 271.
*Influence of Thyroid Treatment on Elimination of Water and Chlorids in Infants. E. Schiff and A. Peiper.—p. 285.
*The Chlorid Content of the Serum in Infants. K. Scheer.—p. 295.

Toxicosis in Infants.—Moro teaches his students that the clinical picture comprises "toxicosis, exsiccosis and acidosis." He ascribes the toxic action to protein cleavage products. The lungs of infants dying from alimentary intoxication present the identical appearance of those with this "peptid poisoning." He cites data to confirm the assumption that the intestinal flora is capable of aiding in the production of amins, and suggests that research along this line on the intestinal bacteria may prove instructive. The toxicity of the bowel content must also be investigated from this standpoint, with modern methods. A further source of amin production is autolysis, and this proceeds with great intensity in typical toxicosis. The histogenous and the enterogenous poisoning are due to one and the same cause.

Spasm of the Pylorus in Infants.—Von Bókay protests against the assumption that operative treatment should be applied at once as soon as hypertrophy of the pylorus is diagnosed in infants. He says that a much larger proportion of cases is due to spasm than generally supposed, and that a narcotic should always be given before attempting to operate. He advocates systematic subcutaneous injection of papaverin hydrochlorid, not hesitating to repeat with large doses if small fail. He describes eight cases in which the pylorus could be palpated as a hard cylinder, but under the papaverin the whole subsided. One child of 2 months took, in the course of not quite two months, five 0.01 gm. doses and forty-six 0.02 gm. doses, and developed normally thereafter. One infant of 4 weeks was given 0.48 gm of the papaverin in forty-eight days. One infant of 2 months recovered on a total of 0.135 gm. in two months, and all have been thriving since, and the contemplated operation was rendered unnecessary. No by-effects were ever observed; the children bore the medication perfectly. In one of the cases the spasm returned a week after the close of a series of twenty-three injections under which the pylorus had become entirely permeable. The recurring spasm subsided anew under an additional series of ten injections.

Intestinal Fermentation.—Freudenberg and Heller discuss the information to be derived from the hydrogen ion concentration in regard to the fermentation in infant's stools.

Paradoxic Schick Diphtheria Reaction in Children.—Opitz explains the nature of the Schick reaction, and of a paradoxic response, tabulating the findings in eighty-one children.

Imbibition Power of Muscle Tissue.—Schiff and Stransky report research on the imbibing power of the muscle tissue from infant cadavers showing great loss of weight, acute or chronic.

Influence of Thyroid Treatment on Elimination of Water and Chlorids in Infants.—Schiff and Peiper report the results of their research in this line before and after thyroid treatment in infants. The thyroid is evidently a regulator of the water and chlorid metabolism, but the experiments described were under such extreme conditions that they can scarcely be compared with the physiologic.

The Chlorid Content of the Blood Serum in Infants.—Scheer found the content constant at about 0.50 to 0.59 per cent. in resting infants, but it seems to be extremely dependent on the gastric secretion, dropping rapidly as digestion begins, regardless of the character of the food. With pneumonia and with much vomiting, the chlorid content of the blood serum

may drop very low. Subcutaneous infusion of isotonic solution of grape sugar causes a reduction for several hours in the chlorid content of the serum.

Münchener medizinische Wochenschrift, Munich

April 1, 1921, 68, No. 13

Cell Detritus in Drug Reactions. H. Freund and R. Gottlieb.—p. 383.
Permeability of Cell Membrane Under Hydroxyl Ions. Jacobi.—p. 385.
Glycosuria Versus Diabetes in Pregnancy. H. Salomon.—p. 386.
Retention of Placental Remnants at Term. W. Zangemeister.—p. 388.
Spinal Fluid Changes with Types of Syphilids. E. F. Schäber.—p. 389.
Bacteriology of Koch-Weeks Conjunctivitis. Pesch.—p. 390.
Roentgenography of Lungs and Diaphragm in Children. Duhes.—p. 391.
Treatment of Rachitic Curvature of Lower Third of Leg. Görres.—p. 392.
Intravesical Operation on Bladder Fistula. W. Röhsamen.—p. 393.
Increase of Mercurial Stomatitis Since the War. Huber.—p. 393.
Zoeterform Skin Necrosis After Intramuscular Injections of Mercuric Succinate. J. Saphier.—p. 394.
Aluminum Chlorate in Therapeutics. Heinz.—p. 395.
Uniform Dosage in Roentgen-Ray Therapy. Schreus.—p. 396.
Pump for "Bauer Regeneration" of Roentgen Tubes. Wels.—p. 397.
Production of Heat in Artificial Heliotherapy. A. Lipp.—p. 398.
Sudden Death in Diabetes Without Coma. G. Deneche.—p. 398.
Nitrobenzol Poisoning in Infants (from Paint) Thomsen.—p. 399.
Large Intra-Abdominal Bilocular Hydrocele. Schütter.—p. 399.
Treatment of Eczema. L. von Zumbusch.—p. 401. Cont'd.

April 22, 1921, 68, No. 16

Retinal Vision Explained on Purely Physical Basis. Koeppe.—p. 475.
Results of Kineplastic Amputations. A. Bethe.—p. 479.
*Sequels of Epidemic Encephalitis. O. Hess.—p. 481.
Emetin Treatment of Bahatidium Colitis. W. Cordes.—p. 484.
Technic of Orthodiagraphy. G. Holzknecht.—p. 485.
Device for Roentgen Tubes. H. Gänsslo.—p. 485.
Treatment of Rachitic Bone Curvatures. G. Wehner.—p. 486.
Transient Shifting of Nasal Septum. B. Griessmann.—p. 486.
Neurorelapse After Seronegative Primary Syphilis in Which the Combined Treatment Was Employed. E. Nathan.—p. 487.
Myxedema with Pluriglandular Insufficiency. Meissner.—p. 488.
Extermination of Vermin in Münich in 1920. G. Mayer.—p. 490.
Nature of Flocculation in Seroreaction. Epstein and Paul.—p. 491.

Sequels of Acute Epidemic Encephalitis.—Hess has recently reexamined 13 men and 4 women who had had epidemic encephalitis in 1919-1920. All 17 patients without exception still have complaints, some of which are serious. The most common complaints are in regard to diminished capacity for work, poor memory and weakened perceptive faculties. Many speak of lack of interest in things about them, noticeable to themselves and remarked upon by their friends. Others state that in the daytime they are sleepy and tired, fall asleep soon after retiring but are soon awake and are unable to get any restful sleep the balance of the night, the sleep they do get being apt to be disturbed by confused and horrid dreams. About 50 per cent. have either continuous or intermittent headache, which is sometimes so severe as to preclude all work. Dizziness and a feeling resembling that of inebriation were mentioned by 6 patients. Some complain of neuralgic and rheumatic pains, various painful and unpleasant sensations marked by jerks and twitches of various muscles. A feeling of weakness in arms and legs, salivation, colorless speech, singultus and yawning were often present. A feeling of unsatiated hunger, together with an enormous appetite and marked, unnatural increase in weight, was noted in 4 cases. Changes affecting the sexual sphere were referred to by 5 patients. In most of the patients the phenomena were decreasing but in 2 they had been increasing of late. Bad weather, all patients stated, seemed to affect unfavorably both physical and mental symptoms. In almost all his patients he found to a greater or less degree changes in character, tendencies and forms of activity. Lack of will power and of energy is the rule. An undue seriousness characterizes many. A peculiar stiff bearing and lack of play of the features are common accompaniments of the altered character.

Wiener klinische Wochenschrift, Vienna

April 14, 1921, 34, No. 15

Effect of Intravenous Injections of Glucose and Acacia Solutions on Diuresis. K. Cori.—p. 169.
*Treatment of Paresis and Tabes. Wagner-Jauregg.—p. 171.
Lumbar Puncture. J. Kyrle.—p. 172.
Pain During Early Morning Hours in the Presence of Calculi of the Kidneys or Ureter. T. Bárany.—p. 173.
Treatment of Cystopyelitis. O. Sachs.—p. 173.
Bang Micromethod for Blood Sugar. Z. Ernst and S. Weiss.—p. 174.
"The Percussion Phenomenon and Its Physical and Diagnostic Interpretation." F. Hamburger.—p. 175. Reply. H. Abels.—p. 175.

Induced Fever in Treatment of Paresis and Tabes.—Wagner-Jauregg sketches his experience with paresis and tabes during the past twenty years. He refers to his successful treatment of general paresis with tuberculin in combination with mercury, an account of which was first given at the International Medical Congress in Budapest in 1909. Of the patients reported on at that time, some are still living and able to follow their calling. At first the tuberculin and mercury were given separately, but later it was found that time could be saved by combining the two. Tuberculin is injected every second day subcutaneously, the object being to produce frequently temperatures of from 38 to 39 C. By this combined tuberculin and mercury treatment he was able to bring about a distinct improvement in over half of the cases treated. The proportion would of course be even larger if only the incipient cases were selected. In not a few cases a full remission is attained, so that the patients are able to resume their regular employment. Pilcz reported in 1911 that of eighty-six cases he was able to restore twenty-three sufficiently to take up their work again. In some cases the remission is permanent; in other cases recurrences take place, which however respond to repeated treatment. Of late years he has used sometimes the Besredka typhoid vaccine, instead of tuberculin, for the febrifacient, with good results. Bacterial toxins and vaccines are, however, only an imperfect substitute for the infectious diseases by which Nature sometimes effects the cure of paresis. In 1917 he began the method of inoculating paretics with tertian malaria, and as the trial proved successful, since of the nine patients thus treated three are still able to do their work, he has been using the method since the fall of 1919 more extensively. The results have been the best that he has seen thus far from any method of treatment. More than a dozen patients have improved to the extent that they are able to attend to the duties of their occupation.

Zeitschrift für Geburtshülfe und Gynäk., Stuttgart

April 5, 1921, 83, No. 2

*Amenorrhea. J. Novak and E. Graff.—p. 289.
Proliferative Processes in Interior of Hydatidiform Mole Villi. H. Hinselmann.—p. 313.
*Puerperal Fever. W. Schmitt.—p. 335.
*Placenta Praevia. B. Liegner.—p. 349.
*Delivery with Narrow Pelvis. W. Schmitt.—p. 366.
*Intra-Uterine Rigor Mortis. B. Liegner.—p. 400.
*Placenta Praevia Cervicalis. H. Krause.—p. 413.
*Experiences with Radiotherapy. W. Benthin.—p. 432.
Weight Curve in Breast-Fed in First Two Weeks. K. Koch.—p. 475.
Retrogressive Changes in Uterine Glands with Amenorrhea. E. Graff and J. Novak.—p. 502.

Amenorrhea.—Novak and Graff found that curetting aided in restoration of menstruation in a large number of their 111 cases of amenorrhea in women between 15 and 39. The uterus mucosa undergoes cyclic changes even without the menstrual hemorrhage. The scraps obtained by curetting show whether the mucosa is comparatively normal or atrophied, thus affording a basis for prognosis. They discovered by this means in six cases a tuberculous process in the uterine mucous membrane which had never induced any appreciable symptoms.

Puerperal Fever.—Schmitt reviews the experiences in Hofmeier's service in 20,000 deliveries. The mortality from puerperal fever was 0.12 per cent. but the infection had been acquired outside in all except nine of the twenty-four fatal cases. The management of deliveries has been approximately the same during the thirty years, and the training of students and midwives has been systematically continued. Rubber gloves are very rarely used.

Placenta Praevia.—Liegner emphasizes that the amount of the hemorrhage is decisive for the fate of the woman, and he urges that the case should be supervised later to learn the permanent effect of such hemorrhages. In his 113 cases there had been bleeding during the pregnancy in over 50 per cent. This reduces the resisting powers and favors septic infection in childbirth.

Delivery with Narrow Pelvis.—Schmitt reports further from Hofmeier's service 526 cases of delivery with narrow pelvis, including 27.9 per cent. primiparas. The total fetal mortality was 10.2 per cent.; the maternal 0.57 per cent. Premature delivery was induced in sixty-three cases, and he urges that all women with contracted pelvis should be sent to an institution at least on the inception of labor. The narrow pelvis

cases formed 5.26 per cent. of the last 10,000 deliveries. The women were delivered by cesarean section in 17.1 per cent. of the 526 cases, and by pubiotomy in four instances, but this class of operations has been abandoned since 1909. The degree of contraction of the pelvis averages high at this clinic (Würzburg), the conjugate diameter measuring from 5.5 to 7.5 cm. in 23.3 per cent.; from 7.6 to 8.5 cm. in 52.7 per cent., and from 8.6 to 10 cm. in 24.1 per cent.

Intra-Uterine Rigor Mortis.—Liegner quotes forty-two cases that have been recorded and states that he has had three cases in his own experience. This intra-uterine rigor renders delivery much more dangerous, but the subsidence of the rigor may permit delivery, impossible at first. Operative delivery avoids these dangers, enabling the fetus to be extracted without damage, while the uterus can be inspected to see if harm has been done by the rigid limbs.

Placenta Praevia Cervicalis.—Krause compares with four cases on record a typical case in his own experience. The tenacious adherence of the placenta and its penetration deep into the musculature of the cervix render the anomaly almost certainly fatal. Cesarean section not only wards this off but allows inspection of conditions, so that the uterus can be removed when the conditions of placentation require this.

Radiotherapy of Uterine Cancer.—Benthin states in concluding this report of the experiences in Winter's service that he is more and more convinced that everything should be surgically removed that it is possible to remove. After this, radiotherapy comes into its rights.

Zeitschrift für Kinderheilkunde, Berlin

April 4, 1921, **28**, No. 5-6

*Hospitalism. E. Steinert.—p. 255.
*Nutrition versus Infection. E. Wertheimer and E. Wolff.—p. 295.
*Manifest Tetany in Infants. E. Nassau.—p. 310.
*The Tolerance of the New-Born for Sugar. P. Feldmann.—p. 325.
*Roentgen Exposure of Suprarenals in Diabetes. H. Beumer.—p. 329.
*Melena in the New-Born. Bernheim-Karrer.—p. 335.
*The Scurvy Question. E. Nobel.—p. 348.

Infants in Institutions.—Steinert reports the experiences at the Foundling's Asylum at Prague where 18 young infants had to be kept for a year or more. Only 4 by the end of the year had reached the normal weight for their age. These 18 children developed 77 infectious diseases; 1 child had some infection of the upper air passages every fifty days. The tuberculin test was applied every month but with negative response in all but 4. The injurious action of the institutional environment becomes apparent after the third or fourth month. The lack of fresh air, and the restlessness interfering with sleep are important factors in hospitalism. The lack of emotional and mental stimuli, and the inability to collect impressions and experiences have also an unfavorable action on the development of the children. The presence of the mother and her individual care are unable to counteract the drawbacks of the institution, even when the mother nurses her child. This confers only a relative protection.

State of Nutrition Versus Infection.—Wertheimer and Wolff explain how nutritional disturbances induce a predisposition to infectious processes and modify their course. They studied this in a number of infants during the influenza epidemic. There seems to be a passive congenital protection against infection which gradually declines, and which is independent of the child's state of nutrition. There is also a gradually increasing active protection as the cells develop and grow stronger with age; this is directly dependent on the state of nutrition, and this is the gage for the resisting power of the infant.

Manifest Tetany in Infants.—Nassau relates that among 36 infants with spasmophilia there were 16 with manifest tetany before the age of 5 months. In 7 of these the child was less than 2 months old. The tetany began with convulsions in 93.7 per cent. of the 16 infants less than 4 months old, and they all had been having some nutritional disorder, dyspepsia, toxicosis or decomposition. In the 20 infants between 6 and 12 months old there were convulsions only in 15 per cent. but 95 per cent. presented laryngospasm, and rachitis and intercurrent infections were decisive factors. The tetany in the first or convulsion group was evidently the result of the nutritional disturbance having induced exaggerated retention of sodium and potassium, in contrast to calcium. This explains the tendency to convulsions. In the older children, inability to retain sufficient calcium entails rachitis, and the losses of calcium allow the sodium and potassium salts to outbalance the calcium, and this entails the laryngospasm. In both groups there is an exaggerated response to electric tests.

Sugar Tolerance in the New-Born.—Feldmann found no sugar in the urine of 68 per cent. of 100 young infants receiving sugar to supplement breast feeding; in 22 per cent. there was less than 1 per cent. sugar, but in ten cases with intake of from 16 to 53 gm. sugar, the sugar ranged from 1 to 2.9 per cent. The concentration of the sugar seems to be decisive. She calculates from these and other experiences, that the tolerance seems to be 7.2 gm. of beet sugar per kg. a day. The limit for milk sugar is less than this—only 3.3 gm. Surpassing these limits does no harm except that a slight transient alimentary glycosuria may be induced in a few cases.

Raying the Suprarenals in Diabetes.—Beumer exposed the suprarenals to the roentgen rays in a case of severe diabetes in a boy of 6½. No by-effects were observed, and general improvement followed; it was most pronounced in the drop of the sugar content of the blood. This declined from 0.375 to 0.153 and lower after three daily exposures. The severe acidosis has subsided also, but no influence on the tolerance for carbohydrates or on the glycosuria has been detected.

Melena in the Newly Born.—Bernheim-Karrer comments on the rarity in recent years of cases of melena neonatorum when the mothers have puerperal fever, such as used to be recorded. During the last week in March, 1920, 6 cases of melena neonatorum developed at the Zurich maternity, but the blood seemed to be sterile in 3 of the children, and the coagulating time was mostly within normal range, even in the graver cases. In one case only injections of citrated blood arrested the hemorrhagic tendency after failure of gelatin, serum, etc. The blood platelets also seemed to be within normal range. In 6 of 12 melena children the hemoglobin percentage was high, and notwithstanding the hemorrhages, there were over 5,000,000 erythrocytes in 3. The general impression from these cases is that the vessels in the intestines, rather than the blood itself, are to be incriminated for the melena.

The Scurvy Question.—Nobel reports from Pirquet's service the cure of seven infants with scurvy under treatment with nothing but milk boiled from ten to thirty-five minutes up to one hour. This demonstrates that the antiscorbutic vitamin is not so sensitive to heat as generally assumed. The scurvy subsided as promptly and completely in these cases as in those treated with lemon juice, etc. The milk had been evaporated to two thirds, and this concentration increased the relative proportion of vitamins even although part might have been destroyed by the heating. The change in the diet is an important factor. Abundance of carbohydrates in the diet is always mentioned in the history of scurvy cases. Nobel has noted further that the infants were liable to sudden losses of several hundred grams of weight during the scurvy and during convalescence, without vomiting or diarrhea to explain it. He thinks that we must accept a tendency to invisible edema as part of the clinical picture of scurvy.

Zeitschrift für klinische Medizin, Berlin

1921, **92**, No. 5-6

*Sodium Edema. A. Magnus-Levy.—p. 287.
*Streptothricosis of Lung. F. Glaser and C. Hart.—p. 294.
*Determination of and Elimination of Albumin. P. Bergell.—p. 317.
*The Volume of Blood Corpuscles. F. Reich.—p. 329.
Roentgenography of Influenzal Pneumonia. E. Liebmann and H. R. Schinz.—p. 345.
*Creatinuria and Acidosis in Diabetes. M. Lauritzen.—p. 376.
*Dilatation of Vessels of Nonsyphilitic Origin. G. Deusch.—p. 386.
*Continuous Bigeminal Pulse. E. Tancré.—p. 402.

Sodium Edema.—Magnus-Levy compares the edema induced with sodium bicarbonate with that induced by sodium chlorid in a number of cases of nephritis or nephrosis, and in diabetics. Edema may develop under the influence of sodium bicarbonate on a salt-poor diet, but it is less pronounced than when salt is being taken freely. The reserves of salt in the

tissues may be drawn out into the edema, or the accumulations in the tissues may persist even with extreme and obstinate edema. The bicarbonate does not induce edema unless there is already a predisposition to sodium chlorid edema, and the edema is never so pronounced as with the latter.

Streptothricosis of Lung.—The patient was a merchant of 49, and the necropsy findings confirmed the clinical diagnosis of pulmonary mycosis. The streptothrix was discovered in the pus from the fistula.

Determination of and Elimination of Albumin.—Bergell relates that the formation of picric acid crystals in 10 c.c. of urine treated with 5 c.c. of Esbach's reagent, is a delicate test for albumin. A positive response throws light on the prognosis although the exact nature of the crystals is not quite clear. The crystals are found more numerous as recovery progresses, as he shows in a number of cases of acute and chronic kidney disease. The changes in the proportion of crystals always foretold exactly the next phase of the disease.

Volume of Blood Corpuscles.—Reich applied both the Alder and the Bence methods, and found that the results harmonized. The size of single erythrocytes showed wide variation, but the normal average seemed to be 9.22 cubic microns. Microcytosis was especially pronounced in tuberculosis.

Creatinuria and Acidosis in Diabetes.—Lauritzen's research seems to demonstrate that both the creatinuria and acidosis in diabetes are the result of defective metabolism of carbohydrates. If the creatinuria is allowed to persist, the muscles suffer in time. It can be kept under control by dieting.

Nonsyphilitic Disease of the Large Vessels.—Deusch discusses tuberculosis, arteriosclerosis and rheumatismal endocarditis as responsible for pathologic conditions in the aorta and other large blood vessels. He reports a number of instances of each, and emphasizes that we must not incriminate syphilis too exclusively even in aneurysmal dilatation in the young. Other factors may induce pathologic conditions practically identical with those of syphilitic origin.

Continuous Bigeminal Pulse.—Tancré's subheading is "Retrograde Extrasystolia," and he reports a case which he thinks is unique in certain respects. He was able to apply various tests, and states that digitalis in small doses seemed to have the most effect. An intercurrent pneumonia did not modify the bigeminus. This sustains the assumption that it is somewhat in the nature of compensation, and not necessarily a bad omen.

Zentralblatt für Chirurgie, Leipzig

April 9, 1921, **48**, No. 14

*Blood Changes After Splenectomy. A. Weinert.—p. 474.
Technic of Closure of Large Chest-Wall Defects. W. Jehn.—p. 477.
Luxation of Tendons of Extensor Digitorum. W. Levy.—p. 482.
Induced Ankylosis of Knee. F. Lemperg.—p. 486.

Surgical Significance of Blood Changes After Splenectomy.—Weinert protests against the assumption that splenectomy does not materially affect the composition of the blood. His data seem to indicate that after the loss of the regulating and inhibiting influence of the spleen on the bone marrow, the latter may functionate with extra energy in the production of blood corpuscles, especially of erythrocytes. This in turn may favorably modify the further course of the disease in question.

Zentralblatt für Gynäkologie, Leipzig

April 9, 1921, **45**, No. 14

*Management of Tubal Pregnancy. H. A. Dietrich.—p. 481.
Expectant Treatment of Advanced Extra-Uterine Pregnancy. J. Olow (Lund).—p. 488.
A Full-Term Extra-Uterine Pregnancy. Hisgen.—p. 490.
*Roentgen Rays in Extra-Uterine Pregnancy. M. Fraenkel.—p. 493.
"Concomitant Bi-Tubal Pregnancy with Spontaneous Regression on One Side." (Borell). J. Schiffmann.—p. 494.
Etiology of Tubal Pregnancy. F. Grieser.—p. 495.
Torsion of Tube in Virgin. K. Heil.—p. 498.
"Kidney Changes in Eclampsia." (Th. Fahr). M. Löhlein.—p. 499.
"Social Gynecology." M. Hirsch.—p. 500.
"Specific Ovarian Secretion." E. Herrmann.—p. 501.

Management of Tubal Pregnancy Cases.—Dietrich has gathered information on the late results in forty-two of his own cases of tubal pregnancy that came to operation, and has also studied the literature on the subject, from which he reaches the following conclusions: After operation for tubal pregnancy patients become again pregnant in 35.19 per cent. of the cases, but only 18.5 per cent. of these are extra-uterine (1 out of 5.4). Out of 4,526 cases of tubal pregnancy a recurrence was reported in 4.68 per cent. In 615 cases of operated tubal pregnancy, intra-uterine pregnancy occurred in 28.62 per cent. (in many cases, several times). On the basis of these statistics Dietrich feels that a routine, prophylactic removal of the other tube in operations for tubal pregnancy is unjustifiable.

Retrogression Under Roentgen Irradiation of Extra-Uterine Pregnancy.—Fraenkel reports the results of his endeavors in two cases of extra-uterine pregnancy to bring about a retrogression by means of roentgen rays. In the first case, extra-uterine pregnancy in the second month, he employed at the first sitting (July, 1914) an irradiation with 80 X, which was repeated the following day with the same dosage. The result was a distinct and unequivocal retrogression of the previously existing enlargement of the adnexa on that side. The patient was dismissed in about two weeks as apparently cured. The second case was in a woman of 21, married one year, who had been subject to profuse and debilitating menses at three-week intervals and lasting a week. Examination revealed a small, infantile, pear-shaped uterus. The ovaries were not palpable on either side. Jan. 23, 1921, the patient was seized with a severe headache and pain in the abdomen. On the right side a spot, painful on pressure and about the size of a small apple, was discovered. There was no fever, but during the examination a trace of blood was noted; likewise the following day, so that extra-uterine pregnancy in the middle of the second month was suspected. The gynecologist who was called in confirmed the suspicion. The patient's family refused immediate operative intervention; therefore, roentgen irradiation was undertaken at once, six fields being irradiated, a total of 18 E. D. at a sitting, 4 mm. of aluminum being used as a filter. The day following the same dose was repeated. Examination three days later disclosed the existence of the painful spot still, but the swelling was considerably smaller, and receded further during the next few days, until it was only the size of a filbert. The left ovary was not palpable. The uterus was unchanged. Further observation revealing no changes, the patient was dismissed. Fraenkel communicates these two case reports for discussion without drawing any conclusions from them. The subject, he thinks, deserves further investigation.

Nederlandsch Tijdschrift v. Geneeskunde, Amsterdam

March 12, 1921, **1**, No. 11

*Treatment of Sciatica. A. C. Wittenrood.—p. 1403.
Technic for Tonsillectomy. H. Burger.—p. 1416.
Transfusion of Blood. T. Joekes.—p. 1422.
Epidemic Encephalitis. P. H. Kramer.—p. 1424.
Friedmann's Treatment of Tuberculosis J. van Tilburg.—p. 1432.

April 23, 1921, **1**, No. 17

Examining the Blood in Malaria. B. Eisendrath.—p. 2268.
Function of the Intercostal Muscles. C. van Gelderen.—p. 2272.
The Albee Operation in Pott's Disease. R. J. Harrenstein.—p. 2279.
Sending the Tuberculous to the Mountains (Switzerland). A. G. W. van Waveren.—p. 2282.
Formation of Inulinase in the Intestines. E. Sluiter.—p. 2286.
Training for Work in Insane Asylums. W. H. Cox.—p. 2289.
Aneurysm in Abdominal Aorta. J. R. Rijtma.—p 2302.

Treatment of Sciatica.—Wittenrood presents arguments to combat the prevailing prejudice against mechanical treatment of sciatica. He discovered the advantages of it in his own person twenty years ago as he cured himself of right sciatica, rebellious for a year to ordinary measures. In pulling off his sock he felt a sharp pain in the right buttock, and surmising that this was from the stretching of the sciatic, he drew up the foot with both hands, trying to touch his forehead with it. The pain was sharp, but after repeating the movement several times in succession the sciatica was cured. The next day conditions were apparently absolutely normal. Years later, another attack of sciatica was cured in the same manner. Since then he has applied it to others, and gives the details of twenty-one cases, and the technic as he has systematized it after research on cadavers. The stretching of the nerve is done by the trochanter being pushed under the

nerve by outward rotation of the leg, abduction and flexion, the foot in the median line and brought up as close to the forehead as possible. The anatomic findings in the cadaver at the different stages of the process are shown in nine illustrations. The sensations of the patient are the guide against too much or too little stretching, and hence anesthesia is best dispensed with. Neuritis is not a contraindication, and success may be realized in the old as well as the recent cases. The course of treatment took from one day to one month in the twenty-one cases tabulated, except four in which from seven weeks to five months were required.

Hospitalstidende, Copenhagen

March 2, 1921, 64, No 9

Cure of Hypertrophy of Muscles. K. H. Krabbe.—p. 129.

March 9, 1921, 64, No. 10.

*Generalized Vaccinia. O. Thomsen.—p. 145.
*Heredity of Dementia Praecox. J. C. Smith.—p. 152.

Generalized Vaccinia.—The revaccinated older children had evidently infected the two younger, and—predisposed by eczema—they developed generalized vaccinia.

Heredity of Dementia Praecox.—Smith traces the mendelian laws in a family in which the father committed suicide in melancholia and the mother died twenty-eight years after internment for dementia praecox. The two sons had dementia praecox, and one daughter drowned herself at the age of 13. The second daughter had been under treatment on two occasions for manic-depressive psychosis, but later recovered, and has been self-supporting for fifteen years, apparently normal.

April 20, 1921, 64, No. 16

*Aneurysm of Spinal Cord Artery. F. Bang.—p. 241.
Hospital Paratyphoid Epidemic. O. R. Schow.—p. 250. Conc'n No. 17.

Aneurysm of Spinal Cord Artery.—The retrospective diagnosis after the sudden death had been embolism in the central nervous system from a cardiac defect, surmised from the attacks of pain in the heart region. But necropsy revealed hematomyelia, the result of rupture of a minute spinal cord artery, the blood having spread up into the medulla oblongata.

Hygiea, Stockholm

Jan. 30, 1921, 83, No. 3

*Sterility in Women. F. Westermark.—p. 33.
Concussion Psychosis. B. A. Boye.—p. 48.

Sterility in Women.—Westermark reviews the numerous factors which may interfere with the spermatozoa reaching the ovum, and the various conditions which might prevent fertilization after the junction had been effected. Broman asserts that the failure of the ova to ripen may be due to defective development of the sex glands, and that this in turn may be the result of a too luxurious mode of life. Fahlbeck has demonstrated that the families of the nobility in Sweden seldom survive beyond the third generation. He found that the last male descendants of 433 Swedish titled families were either unmarried (45 per cent.), or were childless though married (11 per cent.); 39 per cent. had died before reaching maturity, and to 5 per cent. only daughters had been born. Westermark agrees with Broman to the extent that he believes that genius, great talents or wealth lead to the extinction of the family in a few generations. In some women the ovum evidently does not come to maturity; menstruation seems to be normal until the age of 25 or 30, and then it gradually dies out and the women grow fat. The ova do not ripen. Degeneration processes may be responsible for negative chemotaxis, a repelling influence from the ovum. In short, he concludes, the incurable cases of sterility still form the majority. He gives a long list of congenital causes in the husband which may be responsible for the absence of conception, and of four groups of acquired causes, including necrospermia as well as azoospermia. In operating for adnexitis, he is careful to free the fimbriated end of the tubes so as to leave them permeable. An operation to release the tubes and straighten the anteflexed uterus may remove the obstacle to conception. In 26.4 per cent. of fifty-three women thus operated on, a pregnancy followed, and the outcome is not known in forty-two other operative cases of the kind. The outcome encourages operative treatment of sterility even with salpingo-oophoritis. The fimbria have to be freed until they spread out as in normal conditions, the normal relations with the ovaries restored. Retroflexion of the uterus dating from childhood or puberty is usually associated with defective development. Correction may require shortening of the round ligaments, but secondary retroflexion seldom requires this.

Ugeskrift for Læger, Copenhagen

March 17, 1921, 83, No. 11

Study of Circulation in the Capillaries. K. Secher.—p. 367.
Treatment of Flat-Foot. E. Nyrop.—p. 373.

April 14, 1921, 83, No. 15

*Gastric Hypersecretion and Ulcer. K. Faber.—p. 491.
*Electrotherapy in Gout. L. Andresen.—p. 503.

Gastric Hypersecretion and Ulcer.—Faber emphasizes that what functional tests reveal is merely of a symptomatic nature, giving no hint of the cause. He found hyperacidity, for example, in only 21 per cent. of 61 operative cases of juxtapyloric ulcer. The percentage was still less with ulcers in the body of the stomach; the pains are the work of the ulcer itself, not from secretory disturbance. Digestive or continuous hypersecretion was found in 75 per cent. of the 61 juxtapyloric ulcers, but in less than 12 per cent. of his 50 ulcers in the body of the stomach. The juxtapyloric ulcers are the only ones accompanied by pylorospasm. Motor disturbances occur from spasm or paralysis of the pylorus, and the latter is common with corpus ulcers. The more pronounced the hyperacidity, the greater the presumption of ulcer, but intestinal disturbance is often responsible alone for hyperacidity or hypersecretion, and both subside as conditions in the bowels return to normal. Thaysen found high gastric secretion in 70 per cent. of all his cases of habitual constipation. Abuse of alcohol depresses instead of exaggerating gastric secretion. Acid gastritis frequently accompanies ulcer, and may be responsible for symptoms persisting after healing of the ulcer. Faber's experience has been that a cure by medical means alone can be counted on if there have been only three years of ulcer symptoms; in over 50 per cent. a permanent cure, even in many cases of over twenty years' standing. Treatment should include psychotherapy as well as the dietetic measures in many cases, especially when symptoms persist after operative treatment, and with the hyperacidity of nervous dyspepsia or vagotonia.

Arsonvalization in Treatment of Gout.—Andresen calls attention to his constant success in relieving the disturbances in his fourteen cases of muscular gout with distressing infiltration in muscles, tendons and subcutaneous fat tissue. Massage and baths are only palliative and are painful, but under teslaization the relief was prompt and the infiltrations disappeared, the benefit thus being permanent even in cases of twenty-three years' standing. The sittings were for from fifteen to forty-five minutes, and from twenty to twenty-eight sittings were required to free the patient completely from his symptoms and restore him to active life.

April 21, 1921, 83, No. 16

*Bacteriology of Whooping Cough. A. H. Meyer.—p. 523.
*Gastroscopy. C. U. Maaløe.—p. 525.

Whooping Cough.—Meyer found pertussis bacilli in from 63 to 77 per cent. of 120 cases of whooping cough during the catarrhal stage, before the paroxysmal cough had developed. In the first week of the paroxysmal cough, the bacilli were found in 57 per cent. of 277 cases; in 61 per cent. of 201 in the second week; in 40.5 per cent. in the fourth week, and in 9 per cent. of 107 in the fifth week or later. In the 1665 specimens of sputum suspected of pertussis, in 559 it could be excluded. He urges that blood should be sent, along with the sputum, in dubious cases; deviation of complement occurs from the third week and persists for months or years.

Gastroscopy.—A colored plate shows twenty views of the interior of the stomach inspected with Elsner's gastroscope. Maaløe has applied it 500 times since 1912. With this technic it is possible to detect ulcers which escape all other means of investigation. In his ninety-five cases nearly a third had been classed as mere nervous dyspepsia until the gastroscope revealed the ulcer.